

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY GOVERNOR

LYNDO TIPPETT SECRETARY

June 24, 2003

NOTICE TO:

Invitation to Bid Recipients

FROM:

Contract Officer

SUBJECT:

Time Change for Bid Openings

Beginning with the July 22, 2003 Special Letting, the bid opening time and deadline for submitting bids to Bid Express will change from 10:00 a.m. to 2:00 p.m. The deadline for submitting the appropriate proposal form provided by the Department, which includes an executed non-collusion affidavit and bid bond or bid deposit, remains the same. These items shall be delivered in a sealed envelope, with the Contract Number, TIP Number, County and Contractor clearly labeled, to be received no later than 5:00 p.m., the day prior to bid opening.

If you have any questions, please contact Kim Canady at (919) 250-4124 or e-mail her at klcanady@dot.state.nc.us.



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY GOVERNOR

LYNDO TIPPETT **SECRETARY**

June 17, 2003

NOTICE TO:

Plan Holders

FROM:

R. A. Garris, P.E. Contract Officer

SUBJECT:

Delays in Billing

Please be advised that invoices for April, May and June plans and proposals have not been mailed. The Department has been transitioning to a new financial system, and as a result, are experiencing delays in billing. Once the new system becomes stable, and we are able to invoice, you will receive invoices for all orders placed since April 2003. We apologize for any inconvenience that this may cause.

If you have any questions, please contact Kim Canady at (919) 250-4124 or e-mail her at klcanady@dot.state.nc.us.



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY **GOVERNOR**

LYNDO TIPPETT SECRETARY

March 18, 2003

MEMORANDUM TO:

FROM:

R. A. Garris, P. E. Abhum Contract Office

SUBJECT:

Upgrade to Expedite 5.1a

Please be advised that effective with the March 18th, 2003 bid letting, North Carolina Department of Transportation will be upgrading from Expedite 4.3b to Expedite 5.1a. These two versions of software are not backward compatible, meaning files generated in one version can not be opened in the other version. So, the timing and upgrade of this software on your part is extremely critical in submitting bids to North Carolina for March 2003 and forward.

This new version of software is available for download from either the NC Department of Transportation or the Bid Express web site. The links are listed below. Before upgrading your software, please ensure you have backed up your Digital ID. If you have not done so, this can be accomplished through the Tools menu under Digital ID's. It is recommended that you then uninstall the Expedite 4.3b version to ensure no confusion in the future. Once you have installed Expedite 5.1a, you need to enter your Bidder Information and Agency ID. The digital ID backup file you created in the previous version will also need to be imported back in through the Tools menu under Digital ID's. If you do not feel comfortable with any part of this procedure, please do not hesitate to contact the Bid Express helpdesk at (352) 381-4888, to have them walk you through this upgrade. The staff in Design Services Contract Office is also available for any further questions you may have concerning this transition.

Bid Express http://www.bidx.com

NC Department of Transportation http://www.doh.dot.state.nc.us/preconstruct/highway/dsn_srvc/contracts/expedi/

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATON INVITATION TO BID

ELECTRONIC BIDS FOR THE CONSTRUCTION OF THE FOLLOWING PROJECTS WILL BE PUBLICLY READ IN ROOM 156-A/B, THE DESIGN SERVICES LARGE CONFERENCE ROOM, LOCATED IN BUILDING B AT 1020 BIRCH RIDGE DRIVE, RALEIGH, N.C. AT 2:00PM ON JULY 22, 2003. NO ELECTRONIC BIDS WILL BE RECEIVED AFTER 2:00PM.

BIDS SHALL BE SUBMITTED IN ACCORDANCE WITH THE SPECIAL PROVISION TITLED "ON-LINE ELECTRONIC BIDDING" CONTAINED IN EACH PROPOSAL FORM.

THE BIDDER SHALL FURNISH A NON-COLLUSION AFFIDAVIT FOR EACH BID. AFFIDAVIT FORMS WILL BE INCLUDED IN THE PROPOSAL AS PART OF THE SIGNATURE SHEETS.

A BID BOND OR BID DEPOSIT IN THE AMOUNT OF 5% OF THE TOTAL AMOUNT BID WILL BE REQUIRED. THE BIDDER SHALL USE THE STANDARD BID BOND FORM OF THE DEPARTMENT OF TRANSPORTATION, UNLESS HE ELECTS TO FURNISH A BID DEPOSIT. COPIES OF THIS BOND FORM WILL BE ENCLOSED WITH EACH PROPOSAL FORM. ADDITIONAL BOND FORMS MAY BE OBTAINED FROM THE RALEIGH OFFICE. (PHONE - 919-250-4124).

THE MINIMUM WAGE FOR LABOR WILL BE SHOWN IN THE PROPOSAL FORM FOR FEDERAL AID PROJECTS.

CONTRACTOR'S LICENSE: A GENERAL CONTRACTOR'S LICENSE IS REQUIRED IN ORDER TO SUBMIT A BID ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000.00 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. FOR ADDITIONAL INFORMATION OR TO MAKE APPLICATION FOR A LICENSE, APPLY TO THE EXECUTIVE SECRETARY OF THE CONTRACTOR LICENSING BOARD, P.O. BOX 17187, RALEIGH, NC 27619, (919-571-4183).

STATE PRIVILEGE LICENSE TAXES: CONTRACTORS WHO BID UPON AND/OR ARE AWARDED NORTH CAROLINA HIGHWAY CONSTRUCTION PROJECTS ARE SUBJECT TO CONTRACTOR BIDDERS AND/OR CONTRACTOR PROJECT PRIVILEGE LICENSE TAXES UNDER G.S. 105-54 OF THE STATE REVENUE LAWS. FOR INFORMATION, WRITE TO THE NORTH CAROLINA DEPARTMENT OF REVENUE, LICENSE AND EXCISE TAX DIVISION, P.O. BOX 25000, RALEIGH, NC 27640, OR CALL 919-733-3673.

PREQUALIFYING TO BID: ALL PROSPECTIVE BIDDERS SHALL BE PREQUALIFIED WITH THE DEPARTMENT OF TRANSPORTATION PRIOR TO SUBMITTING A BID. CONTRACTORS WHO ARE NOT PREQUALIFIED MAY OBTAIN INFORMATION AND FORMS FOR PREQUALIFYING FROM THE MANAGER OF CONSTRUCTION, DIVISION OF HIGHWAYS, DEPARTMENT OF TRANSPORTATION, 1543 MAIL SERVICE CENTER, RALEIGH, N. C., 27699-1543. ALL REQUIRED PREQUALIFICATION STATEMENTS AND DOCUMENTS SHALL BE FILED WITH THE MANAGER OF CONSTRUCTION AT LEAST TWO WEEKS PRIOR TO THE DATE OF OPENING BIDS.

THE DEPARTMENT OF TRANSPORTATION HEREBY NOTIFIES ALL BIDDDERS THAT IT WILL AFFIRMATIVELY INSURE THAT IN ANY CONTRACT ENTERED INTO PURSUANT TO THIS INVITATION TO BID, MINORITY BUSINESS ENTERPRISES WILL BE AFFORDED FULL OPPORTUNITY TO SUBMIT BIDS IN RESPONSE TO THIS INVITATION AND WILL NOT BE DISCRIMINATED AGAINST ON THE GROUNDS OF RACE, COLOR, SEX, OR NATIONAL ORIGIN IN COMPENSATION TO THIS AWARD.

PROPOSAL FORMS AT \$25.00 EACH, PLANS (SMALL SIZE) AT \$40.00 PER SET, PLANS (LARGE SIZE) AT \$100.00 PER SET, AND CROSS-SECTIONS AT \$40.00 PER SET, PLUS SALES TAX FOR N.C. RESIDENTS, MAY BE OBTAINED BY TELEPHONING (919-250-4124), FAXING (919-250-4127), OR WRITING TO: PLANS AND PROPOSALS, DESIGN SERVICES UNIT, DEPARTMENT OF TRANSPORTATION, 1591 MAIL SERVICE CENTER, RALEIGH, N.C., 27699-1591. THESE CHARGES ARE NOT DEPOSITS AND WILL NOT BE REFUNDED. ALL ORDERS FOR PROPOSAL FORMS, PLANS AND CROSS-SECTIONS DELIVERED IN NORTH CAROLINA ARE SUBJECT TO 7% SALES TAX. ORDERS MAILED TO OUT OF STATE CONTRACTORS ARE NOT SUBJECT TO SALES TAX. MAKE ALL CHECKS PAYABLE TO THE "N.C. DEPARTMENT OF TRANSPORTATION".

THE RIGHT IS RESERVED TO REJECT ANY OR ALL BIDS.

TODAY'S DATE IS JUNE 24, 2003.

BY ORDER OF THE DEPARTMENT OF TRANSPORTATION
(THE WORK WILL CONSIST APPROXIMATELY AS SHOWN ON THE FOLLOWING SHEETS)

REVIEW OF PLANS AND PROPOSALS IN DIVISION OFFICE

IN ORDER TO FACILITATE AND ENCOURAGE THE INVOLVEMENT OF MINORITY BUSINESS ENTERPRISES IN THE HIGHWAY CONSTRUCTION PROCESS, IT IS THE POLICY OF THE DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, THAT A SET OF PLANS AND PROPOSAL FOR EACH PROJECT TO BE LET WILL BE MAINTAINED FOR REVIEW BY ANY CONTRACTOR INTERESTED IN BIDDING UPON OR QUOTING WORK IN AN ADVERTISED PROJECT.

THE PROPOSALS AND PLANS WILL BE AVAILABLE FOR REVIEW BEGINNING TWO WEEKS PRIOR TO THE DATE OF BID OPENING IN THE DIVISION OFFICE WHICH WILL ADMINISTER THE CONTRACT. THE DEPARTMENT WILL, UPON REQUEST, MAKE AVAILABLE FROM ITS STAFF A PERSON TO EXPLAIN THE PROPOSED PROJECT AND TO ANSWER GENERAL QUESTIONS RELATING TO THE PROJECT. THE PLANS AND PROPOSALS CAN BE REVIEWED ANY TIME MONDAY THRU FRIDAY, EXCLUDING HOLIDAYS, BETWEEN THE HOURS OF 8:00 A.M. AND 4:30 P.M. IN THE DIVISION OFFICE. IN ORDER TO HAVE A MEMBER OF THE STAFF EXPLAIN THE PROJECT AND/OR ANSWER GENERAL QUESTIONS PERTAINING TO THE PROJECT, PRIOR APPOINTMENTS MUST BE MADE BY CALLING THE APPROPRIATE DIVISION OFFICE.

FOLLOWING ARE THE LOCATIONS AND TELEPHONE NUMBERS OF THE OFFICES IN WHICH THE PLANS AND PROPOSALS WILL BE MADE AVAILABLE, REFERENCE SHOULD BE MADE TO THE SHEETS CONTAINING THE INDIVIDUAL PROJECT QUANTITIES TO DETERMINE WHICH DIVISION OFFICE WILL ADMINISTER THE CONTRACT.

DIV NO	<u>. DIVISION ENGINEER</u>	LOCATION	<u>TOWN</u>	TELEPHONE
00001	D. R. Conner	113 AIRPORT DRIVE	EDENTON	(252) 482-7977
00002	C. E. Lassiter, Jr.	105 PACTOLUS ROAD	GREENVILLE	(252) 830-3490
00003	H. A. Pope	124 DIVISION DRIVE	WILMINGTON	(910) 251-5724
00004	Anthony W. Roper , PE	509 WARD BOULEVARD	WILSON	(252) 237-6164
00005	J. G. Nance	2612 NORTH DUKE STREET	DURHAM	(919) 560-6851
00006	T. R. Gibson	558 GILLESPIE STREET	FAYETTEVILLE	(910) 486-1493
00007	J. M. Mills	1534 YANCEYVILLE STREET	GREENSBORO	(336) 334-3192
80000	W. F. Rosser	902 N. SANDHILLS BOULEVARD	ABERDEEN	(910) 944-2344
00009	S. P. Ivey	2125 CLOVERDALE AVENUE	WINSTON-SALEM	(336) 631-1340
00010	B. G. Payne	716 WEST MAIN STREET	ABLEMARLE	(704) 982-0101
00011	R. C. McCann	NC-115 WEST	NORTH WILKESBORO	(336) 667-9111
00012	M. L. Holder	1710 EAST MARION STREET	SHELBY	(704) 480-5400
00013	J. J. Swain	55 ORANGE STREET	ASHEVILLE	(828) 251-6171
00014	R. G. Watson	253 WEBSTER ROAD	SYLVA	(828) 586-2141

Bid l	Bid Letting Number L030722									
RPN	Contract Id	WBS	County	Length	JobType					
001	C200692	34365.3.41	WAKE	5.961 KM	GRADING, DRAINAGE, PAVING & STRUCTURES.					
002	C200691	34365.3.40	WAKE	5.729 KM	GRADING, DRAINAGE, PAVING & STRUCTURES.					
003	C200869	34365.3.40 ETC.	WAKE	11.690 KM	GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS & STRUCTURES.					
004	C200739	34398.3.10	MONTGOMERY, RICHMOND	6.925 KM	WIDENING, GRADING, DRAINAGE, PAVING & STRUCTURES.					
005	C200279	34398.3.11	MONTGOMERY	4.446 KM	WIDENING, GRADING, DRAINAGE, PAVING & STRUCTURES.					
006	C200874	34398.3.10 ETC.	MONTGOMERY, RICHMOND	11.371 KM	WIDENING, GRADING, DRAINAGE, PAVING & STRUCTURES.					
007	C200738	34398.3.8	RICHMOND	5.945 KM	GRADING, DRAINAGE, PAVING & STRUCTURES.					
008	C200280	34398.3.9	RICHMOND	10.382 KM	GRADING, DRAINAGE, PAVING $\&$ STRUCTURES.					
009	C200873	34398.3.8 ETC.	RICHMOND	16.327 KM	GRADING, DRAINAGE, PAVING, SIGNALS, & STRUCTURES.					

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L030722 001

FEDERAL AID PROPOSAL, CONTRACTOR LICENSE NOT REQUIRED TO BID

CONTRACT ID: C200692 34365.3.41 DIV OFFICE DURHAM LENGTH = 5.961 KM

COUNTY : WAKE

GRADING, DRAINAGE, PAVING & STRUCTURES.

DBE GOAL 10.0% COMPLETION DATE: APR 15 2006

I-540 (NORTHERN WAKE EXPRESSWAY) FROM SOUTH OF SR-2215 (BUFFALOE RD) TO US-64 EAST OF KNIGHTDALE.

		ROADWAY ITEMS	10.8	M	600MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
		MODEL TO SECURITY OF THE SECUR	33.6	M	800MM BIT COAT CS PIPE CUL- VERTS, TYPE B 2.01MM THICK
Lump Sum Lump Sum	LS LS	MOBILIZATION CONSTRUCTION SURVEYING	20.4	M	900MM BIT COAT CS PIPE CUL-
Lump Sum	LS	CLEARING & GRUBBING HEC- TARE(S)	22	EA	VERTS, TYPE B 2.01MM THICK 400MM BIT COAT CS PIPE ELBOWS,
2	HA	SUPPLEMENTARY CLEARING & GRUB-	8	EA	TYPE B 1.63MM THICK
7	EA	BING SEALING ABANDONED WELLS	δ	EA	450MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
1,256,000	M3	UNCLASSIFIED EXCAVATION	2	EA	600MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION ***********	324.8	M	PIPE REMOVAL
		(12+99.50)	5	EA	PIPE CLEAN-OUT
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********	350 Lump Sum	M2 LS	150MM SLOPE PROTECTION FINE GRADING
		(16+53.916)		MTN	STABILIZER AGGREGATE
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********		MTN	AGGREGATE BASE COURSE
		(445+88.00-LT)	20,585	MTN M3	INCIDENTAL STONE BASE SHOULDER BORROW
Lump Sum	LS	REINFORCED BRIDGE APPROACH	11,700	L	PRIME COAT
		FILL, STATION ************************************	4,130	M2	INCIDENTAL MILLING
8,000	М3	(445+88.00-RT) UNDERCUT EXCAVATION	26,900	MTN	ASPHALT CONC BASE COURSE, TYPE
	MTN	CLASS IV SUBGRADE STABILIZA-			B25.0B
		TION	22,600	MTN	ASPHALT CONC BASE COURSE, TYPE B25.0C
8,290 9,000	M3 M2	DRAINAGE DITCH EXCAVATION REMOVAL OF EXISTING ASPHALT	670	MTN	ASPHALT CONC INTERMEDIATE
		PAVEMENT	20,100	MTN	COURSE, TYPE I19.0B ASPHALT CONC INTERMEDIATE
1,150	M2	BREAKING OF EXISTING ASPHALT PAVEMENT			COURSE, TYPE I19.0C
72	HR	PROOF ROLLING	11,7/5	MIN	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
4,025	M3	SELECT GRANULAR MATERIAL FABRIC FOR SOIL STABILIZATION	12,750	MTN	ASPHALT CONC SURFACE COURSE,
4,000 500	M2 M2	TEMPORARY SHORING	2.760	MTN	TYPE S12.5C
285	M2	GENERIC GRADING ITEM	3,/00	MIN	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
525	MTN	ROCK PLATING SELECT MATERIAL, CLASS II	705	MTN	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
	MTN	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRS	50	MTN	ASPHALT PLANT MIX PAVEMENT REPAIR
93.6	M	375MM SIDE DRAIN PIPE	131,090	M2	***MM PORT CEM CONC PAVEMENT,
2,526	M	375MM RC PIPE CULVERTS, CLASS III			THROUGH LANES (WITH DOWELS) (300MM)
851.2	M	450MM RC PIPE CULVERTS, CLASS	6,810	M2	***MM PORT CEM CONC PAVEMENT,
1,395.6	M	III 600MM RC PIPE CULVERTS, CLASS			MISCELLANEOUS (WITHOUT DOWELS) (300MM)
		Ш	Lump Sum	LS	SURFACE TESTING CONCRETE PAVE- MENT
1,172.4	M	750MM RC PIPE CULVERTS, CLASS III	70,430	M2	CONCRETE SHOULDERS ADJACENT TO
284.4	M	900MM RC PIPE CULVERTS, CLASS III			***MM PAVEMENT (300MM)
109.2	M	1050MM RC PIPE CULVERTS, CLASS III	Lump Sum	LS	FIELD LABORATORY RENTAL, PORT CEM CONC PAVEMENT
48	M	1200MM RC PIPE CULVERTS, CLASS	163		RIGHT OF WAY MARKERS
		Ш	3,726		SUBDRAIN EXCAVATION
64.8	M	1350MM RC PIPE CULVERTS, CLASS III	1,863 4,500	M3 M	SUBDRAIN FINE AGGREGATE 100MM PERFORATED SUBDRAIN PIPE
15.6	M	1650MM RC PIPE CULVERTS, CLASS	4,500	EA	100MM SUBDRAIN PIPE WYES,
122.4	M	III ****MM RC PIPE CULVERTS, CLASS	30	EA	TEES, & ELBOWS CONCRETE PAD FOR SUBDRAIN PIPE
		IV (900MM)	60	м	OUTLET
216	M	150MM CS PIPE CULVERTS, 1.63MM	20,600	M M	100MM OUTLET PIPE (SUBDRAINS) SHOULDER DRAIN
		THICK (SPRING BOX)	20,600	M	100MM SHOULDER DRAIN PIPE
30	M	400MM CS PIPE CULVERTS, 1.63MM THICK	2,150		100MM OUTLET PIPE (SHOULDER DRAINS)
39.6	M	600MM CS PIPE CULVERTS, 1.63MM THICK	100	EA	CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET
20.4	M	800MM CS PIPE CULVERTS, 2.01MM	18.4	М3	ENDWALLS
***		THICK	3.8	M3	REINFORCED ENDWALLS
248.4	M	400MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK	0.29	M3	PIPE COLLARS
82.8	M	450MM BIT COAT CS PIPE CUL-	0.36		PIPE PLUGS
		VERTS, TYPE B 1.63MM THICK	140	EA	MASONRY DRAINAGE STRUCTURES

			17	EA	SIGN ERECTION, TYPE *** (OVER-
			_		HEAD) (A)
7.37 33.171	M3 M	MASONRY DRAINAGE STRUCTURES MASONRY DRAINAGE STRUCTURES	7	EA	SIGN ERECTION, TYPE *** (OVER- HEAD) (B)
6 16	EA EA	FRAME WITH GRATE, STD 840.22 FRAME WITH TWO GRATES, STD	3	EA	SIGN ERECTION, TYPE *** (GROUND MOUNTED)
		840.***** (840.20)	4	EA	(A) SIGN ERECTION, TYPE ***
1	EA	FRAME WITH TWO GRATES, STD 840.16			(GROUND MOUNTED) (B)
94	EA	FRAME WITH TWO GRATES, STD 840.22	30 1	EA EA	SIGN ERECTION, MILEMARKERS RELOCATE SIGN, TYPE *****
2	EA EA	FRAME WITH TWO GRATES, STD 840.24	3	EA	(D) RELOCATE SIGN, TYPE *****
3	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	3	EA	(E) DISPOSAL OF SIGN SYSTEM, STEEL BEAM
3	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE **	39	EA	DISPOSAL OF SIGN SYSTEM, U- CHANNEL
7	EA	(F) FRAME WITH GRATE & HOOD, STD	3	EA	DISPOSAL OF SUPPORT, U-CHANNEL
		840.03, TYPE ** (G)	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN BENCH TEST UNIT
3	EA	STEEL FRAME WITH TWO GRATES, STD 840.37	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN MAIN-
384 940	M M	750MM CONCRETE CURB & GUTTER SHOULDER BERM GUTTER			TENANCE TRAINING
490	M	CONCRETE EXPRESSWAY GUTTER	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN SYSTEM
18.4	M2	150MM CONCRETE DRIVEWAY			DESIGN APPROVAL TESTS
127	M2	100MM CONCRETE PAVED DITCH	Lump Sum	LS	GENERIC SIGNING ITEM
1,310	M2	125MM MONOLITHIC CONCRETE IS- LANDS (SURFACE MOUNTED)			DYNAMIC MESSAGE SIGN SYSTEM INTEGRATION
115	M	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN SYSTEM
14	EA	IMPACT ATTENUATOR UNIT, TYPE 350	Lump Sum	LS	NTCIP ACCEPTANCE TESTS GENERIC SIGNING ITEM
5,273.04	M	STEEL BM GUARDRAIL	•		DYNAMIC MESSAGE SIGN SYSTEM
34.29	M	STEEL BM GUARDRAIL, SHOP	Lump Sum	LS	OPERATIONAL FACTORY TESTS GENERIC SIGNING ITEM
8	EA	CURVED STEEL BM GUARDRAIL TERMINAL	Lump Sum	Lo	DYNAMIC MESSAGE SIGN SYSTEM OPERATIONAL FIELD TESTS
10	EA	SECTIONS ADDITIONAL GUARDRAIL POSTS	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (F)
8	EA	GUARDRAIL ANCHOR UNITS, TYPE ************************************	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (I)
16	EA	(B-77) GUARDRAIL ANCHOR UNITS, TYPE CAT-1	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (J)
12	EA	GUARDRAIL ANCHOR UNITS, TYPE	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE SIGN
24	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	Lump Sum	LS	ASSEMBLY (DMS-4) GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE SIGN
2	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350	Lump Sum	LS	SYSTEM (DMS-3) GENERIC SIGNING ITEM
130 53.34	M M	REMOVE EXISTING GUARDRAIL TEMPORARY STEEL BM GUARDRAIL			OVERHEAD DYNAMIC MESSAGE SIGN SYSTEM (DMS-4)
1	EA	GUARDRAIL ANCHOR UNITS, TYPE 350 TEMPORARY	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD DYNAMOC MESSAGE SIGN
5,286.06 24	M EA	CABLE GUIDERAIL CABLE GUIDERAIL ANCHOR UNITS	Lump Sum	LS	ASSEMBLY (DMS-3) GENERIC SIGNING ITEM
12,525	M	WOVEN WIRE FENCE, 1200MM FAB- RIC	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (A) GENERIC SIGNING ITEM
2,422	EA	100MM TIMBER FENCE POSTS, 2.30M LONG	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (B) GENERIC SIGNING ITEM
950	EA	125MM TIMBER FENCE POSTS, 2.50M LONG	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (C) GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (D)
600 450	M MTN	ADDITIONAL BARBED WIRE PLAIN RIP RAP, CLASS I	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (D) GENERIC SIGNING ITEM
		PLAIN RIP RAP, CLASS II PLAIN RIP RAP, CLASS B	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (F) GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (G)
9,750	M2	FILTER FABRIC FOR DRAINAGE	Lump Sum	LS	GENERIC SIGNING ITEM
2	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (H) GENERIC SIGNING ITEM
104	MTN	GENERIC EROSION CONTROL ITEM BOULDERS	Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (I) GENERIC SIGNING ITEM
2	M3	REINFORCED CONCRETE SIGN FOOT- INGS	74	M2	OVERHEAD SIGN ASSEMBLY (J) WORK ZONE SIGNS (STATIONARY)
1	M3	PLAIN CONCRETE SIGN FOOTINGS	66	M2	WORK ZONE SIGNS (PORTABLE)
1,001	KG	SUPPORTS, BREAKAWAY STEEL BEAM	28	M2	WORK ZONE SIGNS (BARRICADE
289 541	KG M	SUPPORTS, SIMPLE STEEL BEAM SUPPORTS, 4.5KG STEEL	2	EA	MOUNTED) FLASHING ARROW PANELS, TYPE C
5.1		U-CHANNEL	2	EA	CHANGEABLE MESSAGE SIGNS
6	EA	SUPPORTS, 3KG STEEL U-CHANNEL	4	EA	WARNING FLAG SETS
8 50	EA	SIGN ERECTION, TYPE D	160	EA	DRUMS
59 3	EA EA	SIGN ERECTION, TYPE E SIGN ERECTION, TYPE F	50	EA	CONES
3	1		78	M	BARRICADES (TYPE III)

			69	M	FILL OR REMOVE ABANDONED 400MM PIPE, ************
720	HR	FLAGGER	209	M	(DI WATER) ***MM STEEL ENCASEMENT PIPE, ****MM THICK, BY OPEN CUT
10	EA	WARNING LIGHTS (TYPE B)			(500MM, 6.25MM)
4	EA	TEMPORARY CRASH CUSHIONS	58	M	***MM STEEL ENCASEMENT PIPE,
3	EA	RESET TEMPORARY CRASH CUSHIONS			****MM THICK, BY OPEN CUT
2	EA	TRUCK MOUNTED IMPACT ATTENUATOR (45 MPH)	1	EA	(750MM, 9.525MM) GENERIC UTILITY ITEM
352 391	M M	PORTABLE CONCRETE BARRIER PORTABLE CONCRETE BARRIER			REMOVE AND STOCKPILE EXISTING FIRE HYDRANT
352	M	(ANCHORED) PORTABLE CONCRETE BARRIER	4	EA	GENERIC UTILITY ITEM REMOVE EXISTING BLOWOFF
375	M	(DRAINAGE) RESET PORTABLE CONCRETE BAR-	7,500 625	M MTN	TEMPORARY SILT FENCE STONE FOR EROSION CONTROL,
		RIER			CLASS A
48 113	HR EA	POLICE TUBULAR MARKERS (FIXED)	22,500	MIN	STONE FOR EROSION CONTROL, CLASS B
399	M	REMOVABLE TAPE PAVEMENT MARK-	11,500	MTN	SEDIMENT CONTROL STONE
		ING LINES (100MM)	69.5	HA	TEMPORARY MULCHING
314	EA	TEMPORARY RAISED PAVEMENT MARKERS	3,875	KG	SEED FOR TEMPORARY SEEDING
13,878	M	THERMOPLASTIC PAVEMENT MARKING	31.25	MTN	FERTILIZER FOR TEMPORARY SEED- ING
		LINES (100MM, 2.3MM)	700	M	TEMPORARY SLOPE DRAINS
5,779	M	THERMOPLASTIC PAVEMENT MARKING	50	EA	INLET PROTECTION AT TEMPORARY
1,199	M	LINES (100MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING	05.500	1.60	SLOPE DRAINS
1,177	141	LINES (200MM, 2.3MM)	95,500 6,000	M3 M2	SILT EXCAVATION SYNTHETIC ROVING
216	M	THERMOPLASTIC PAVEMENT MARKING	15,000	M2	MATTING FOR EROSION CONTROL
96	EA	LINES (600MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING	250	M2	PERMANENT SOIL REINFORCEMENT
90	LA	SYMBOL (2.3MM)	600	M	MAT 6.4MM HARDWARE CLOTH
1,316	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (100MM)	100	M	***MM TEMPORARY PIPE
10	M	COLD APPLIED PLASTIC PAVEMENT	3	EA	(450MM) ***X***X***MM PERFORATED CS
4	EA	MARKING LINES (600MM) COLD APPLIED PLASTIC PAVEMENT			PIPE TEE RISER, 1.63MM THICK (800MM X 800MM X 800MM)
22,012	M	MARKING SYMBOL PAINT PAVEMENT MARKING LINES	710	М3	STILLING BASINS
	M	(100MM) PAINT PAVEMENT MARKING LINES	48 92	EA HA	SPECIAL STILLING BASINS SEEDING & MULCHING
9,386		(150MM)	37.5	HA	MOWING
1,092	M	PAINT PAVEMENT MARKING LINES (200MM)	825 2.75	KG MTN	SEED FOR REPAIR SEEDING FERTILIZER FOR REPAIR SEEDING
308	M	PAINT PAVEMENT MARKING LINES (600MM)	2,600	KG MTN	SEED FOR SUPPLEMENTAL SEEDING
84	EA	PAINT PAVEMENT MARKING SYMBOL	1.1	HA	FERTILIZER TOPDRESSING SPECIALIZED SEEDING UNDER
833	M	REMOVAL OF PAVEMENT MARKING LINES (100MM)			GUIDERAIL & GUARDRAIL (CENTI- PEDE)
43,907	M	GENERIC PAVEMENT MARKING ITEM	120	M	IMPERVIOUS DIKE
,		150MM POLYUREA PAVEMENT MARK-	60	HR	SPECIALIZED HAND MOWING
		ING LINES	32	EA	RESPONSE FOR EROSION CONTROL
1,700	M	GENERIC PAVEMENT MARKING ITEM 300MM POLYUREA PAVEMENT MARK-	450	M3	CULVERT DIVERSION CHANNEL
		ING LINES	6	HA	REFORESTATION
20	EA	GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING SYM-	2,195 55	M EA	SIGNAL CABLE VEHICLE SIGNAL HEAD (300MM, 3
	.	BOLS	10	EA	SECTION) VEHICLE SIGNAL HEAD (300MM, 5
1,014	EA	PERMANENT RAISED PAVEMENT MARKERS	10	EA	SECTION)
95	EA	FLEXIBLE DELINEATORS (CRYSTAL)	34	EA	BACKPLATE
48	EA	FLEXIBLE DELINEATORS (YELLOW)	1,436	M	MESSENGER CABLE (6.35MM)
20	EA	FLEXIBLE DELINEATORS (CRYSTAL	1,310	M	MESSENGER CABLE (9.52MM)
20	EA	& RED) FLEXIBLE DELINEATORS (YELLOW &	13,920 1,242	M M	TRACER WIRE
20	EA	RED)	1,242	M	TRENCHING (UNPAVED) DIRECTIONAL DRILL POLYETHYLENE
9	EA	OBJECT MARKERS (END OF ROAD)	20	.,,	CONDUIT, 31.75MM (** CONDUIT)
147	MTN	FOUNDATION CONDITIONING MATE- RIAL, UTILITIES CLASS ********	1,551	M	(2) DIRECTIONAL DRILL OUTER-DUCT
1.47) (TD)	(VI)	202	.,	CONDUIT, 125MM
147	MTN	BEDDING MATERIAL, UTILITIES CLASS ********** (VI)	892	M	TRENCH MULTI-DUCT, 31.75MM (** CONDUIT) (4)
5	MTN	PAVEMENT REPAIR FOR UTILITY	1,618	M	MULTI-DUCT, 31.75MM IN OUTER-
270	M	WORK ***MM DI WATER PIPE, CLASS			DUCT (** CONDUIT) (4)
210	171	************ WP	25	EA	JUNCTION BOX (STANDARD SIZE)
		(400MM, 50, 2.41MPA)	100	EA	JUNCTION BOX (OVER-SIZED)
131	M	300MM DI WATER PIPE, CLASS ********** WP	11	EA	JUNCTION BOX (OVER-SIZED, HEA-
		(50, 2.41MPA)	10	EA	VY DUTY) WOOD POLE
14	M	150MM DI WATER PIPE, PC	10 17	EA EA	WOOD POLE GUY ASSEMBLY
2		2.41MPA	5	EA	50MM RISER WITH WEATHERHEAD
241	M	400MM DI WATER PIPE, PC ***MPA (2.41MPA)	10	EA	50MM RISER WITH HEAT SHRINK TUBING
2,510	KG	DUCTILE IRON WATER PIPE FIT- TINGS, 1.72MPA MIN WP	1,440	M	INDUCTIVE LOOP SAWCUT
1	EA	RELOCATE EXISTING FIRE HYDRANT	4,440	M	LEAD-IN CABLE

CULVERT ITEMS

3	EA	MICROWAVE VEHICLE DETECTOR	Lump Sum	LS	CULVERT EXCAVATION, STA *****
1,767	M	COMMUNICATIONS CABLE (**FIBER)	I C	1.0	(442+07.500 -L-)
12,614	M	(12) COMMUNICATIONS CABLE (**FIBER)	Lump Sum	LS	CULVERT EXCAVATION, STA ****** (457+00.00 -L-)
**		(72)	482	MTN	FOUNDATION CONDITIONING MATER-
12	EA	AERIAL SPLICE ENCLOSURE	602.1	M2	IAL, BOX CULVERT
18 7	EA EA	INTERCONNECT CENTER FIBER-OPTIC TRANSCEIVER	692.1 58,252	M3 KG	CLASS A CONCRETE (CULVERT) REINFORCING STEEL (CULVERT)
68	EA	DELINEATOR MARKER	30,232		NEED OROLOG BYEELE (COE VENT)
2	EA	FURNISH FIBER-OPTIC TRANSCEIV-			
		ER			STRUCTURE ITEMS
24	EA	METAL STRAIN SIGNAL POLE			STREETERE ITEMS
24	EA	METAL STRAIN POLE POUNDATION			
2 35	EA EA	METAL STRAIN POLE DESIGN SIGN FOR SIGNALS	Lump Sum	LS	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMP ACCESS AT STA
5	EA	SIGNAL CABINET FOUNDATION			******
2	EA	CABINET BASE ADAPTER			(445+88.000 -L-LT)
3	EA	CONTROLLER WITH CABINET (TYPE	Lump Sum	LS	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMP ACCESS AT STA
40	EA	170E, BASE MOUNTED)			******
49	EA EA	DETECTOR CHANNEL (TYPE 170) CONTROLLER WITH CABINET (TYPE			(445+88.000 -L-RT)
-	Lit	2070L, BASE MOUNTED)	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION **********
12	EA	DETECTOR CHANNEL (TYPE 2070L)			(1,437+50.704 -L-)
5	EA	DETECTOR CHANNEL (NEMA TS-2)	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
1	EA	NOTEBOOK COMPUTER			** AT STATION ************************************
6	EA	GENERIC SIGNAL ITEM CCTV ASSEMBLY	115.1	M	****MM DIA DRILLED PIERS IN
6	EA	GENERIC SIGNAL ITEM			SOIL
		CCTV CAMERA WOOD POLE (15.2M)	70.5		(1372MM)
5	EA	GENERIC SIGNAL ITEM FIBER OPTIC DATA TRANCEIVER	70.5	M	****MM DIA DRILLED PIERS NOT IN SOIL
		(SINGLE FIBER)			(1372MM)
7	EA	GENERIC SIGNAL ITEM	67.5	M	PERMANENT STEEL CASING FOR
		FIBER OPTIC DIGITAL VIDEO RECEIVERS/DATA TRANSMITTERS			****MM DRILLED PIER (1372MM)
7	EA	GENERIC SIGNAL ITEM	6	EA	CROSSHOLE SONIC LOGGING
		FIBER OPTIC DIGITAL VIDEO	815.6	M	CSL TUBES
	Б.	TRANSMITTERS/DATA RECEIVERS	8,748.6	M2	REINFORCED CONCRETE DECK SLAB
1	EA	GENERIC SIGNAL ITEM FURNISH FIBER OPTIC DATA	7,927.9	M2	GROOVING BRIDGE FLOORS
		TRANSCEIVER (SINGLE FIBER)	1,184	M3 LS	CLASS A CONCRETE (BRIDGE) BRIDGE APPROACH SLABS, STATION
1	EA	GENERIC SIGNAL ITEM	Lump Sum	Lo	**********
		FURNISH FIBER OPTIC DIGITAL VIDEO RECEIVERS/DATA TRANS-			(437+50.704 -L-)
		MITTERS	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
1	EA	GENERIC SIGNAL ITEM			(445+88.000 -L-LT)
		FURNISH FIBER OPTIC DIGITAL VIDEO TRANSMITTERS/DATA	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
		RECEIVERS			**************************************
1	EA	GENERIC SIGNAL ITEM	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
Lump Sum	LS	RELOCATE CCTV ASSEMBLY GENERIC SIGNAL ITEM			******
Lump Sum	Lo	CCTV SYSTEM INTEGRATION	120 125	W.C	(465+66.727 -L-)
393	M	GENERIC SIGNAL ITEM	130,125 19,078	KG KG	REINFORCING STEEL (BRIDGE) SPIRAL COLUMN REINFORCING
1.000		DROP CABLE (24 FIBER)	17,076	KO	STEEL (BRIDGE)
1,889	M	GENERIC SIGNAL ITEM DROP CABLE (6 FIBER)	1,571.52	M	MODIFIED 1829MM PRESTRESSED
11,119	M	GENERIC SIGNAL ITEM	505 200	1.0	CONC GIRDERS
		UNDERGROUND MULTIDUCT	585,300	LS	APPROX KG STRUCTURAL STEEL
		(31.75MM) (4 CONDUIT)	708	M	HP310X79 STEEL PILES
			700	M	HP360X108 STEEL PILES
		****** BEGIN SCHEDULE AA ******	875.12	M	CONCRETE BARRIER RAIL
		****** (2 ALTERNATES) ******	1,330	M2	100MM SLOPE PROTECTION
58,014	M2	LIME TREATED SOIL (SLURRY METHOD)	1,930	MTN	PLAIN RIP RAP CLASS II (600MM THICK)
640	MTN	LIME FOR LIME TREATED SOIL	1,965	M2	FILTER FABRIC FOR DRAINAGE
174,050	M2	***MM SOIL CEMENT BASE	Lump Sum	LS	POT BEARINGS
		(180MM)	Lump Sum	LS	ELASTOMERIC BEARINGS
5,225	MTN	PORTLAND CEMENT FOR SOIL CE- MENT BASE	Lump Sum	LS	EVAZOTE JOINT SEALS
2,350	MTN	AGGREGATE FOR SOIL CEMENT BASE	Lump Sum Lump Sum	LS LS	EXPANSION JOINT SEALS ELECTRICAL CONDUIT SYSTEM, STA
157,800	L	ASPHALT CURING SEAL	Lamp Sulli	1.0	**********
10	MTN	BLOTTING SAND			(445+88 -L-RT)
		*** OR ***	38	M	GENERIC STRUCTURE ITEM PILE EXCAVATION IN SOIL
111,400	MTN	GENERIC PAVING ITEM AGGREGATE BASE COURSE FOR	19	M	GENERIC STRUCTURE ITEM
		STABILIZATION			PILE EXCAVATION NOT IN SOIL

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L030722 002

FEDERAL AID PROPOSAL, CONTRACTOR LICENSE NOT REQUIRED TO BID

CONTRACT ID: C200691 34365.3.40 DIV OFFICE DURHAM LENGTH = 5.729 KM

COUNTY : WAKE

GRADING, DRAINAGE, PAVING & STRUCTURES.

DBE GOAL 10.0% COMPLETION DATE: APR 15 2006

I-540 (NORTHERN WAKE EXPRESSWAY) FROM EAST OF US-1 SOUTH OF PERRY CREEK RD TO SOUTH OF BUFFALOE RD.

		ROADWAY ITEMS	13.2	M	450MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
		Many Wilmon	61.2	M	600MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
Lump Sum Lump Sum	LS LS	MOBILIZATION CONSTRUCTION SURVEYING	64.8	M	800MM BIT COAT CS PIPE CUL-
Lump Sum	LS	CLEARING & GRUBBING HEC-			VERTS, TYPE B 2.01MM THICK
•		TARE(S)	19.2	M	1000MM BIT COAT CS PIPE CUL- VERTS, TYPE B 2.77MM THICK
2	HA	SUPPLEMENTARY CLEARING & GRUB- BING	9.6	M	1200MM BIT COAT CS PIPE CUL- VERTS, TYPE B 2.77MM THICK
4	EA	SEALING ABANDONED WELLS	2	EA	***MM BIT COAT CS PIPE ELBOWS,
1,033,800	M3	UNCLASSIFIED EXCAVATION			TYPE B ****MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION ***********	2	Б.	(1000MM, 2.77MM)
		(12+97.459 YREV)	2	EA	***MM BIT COAT CS PIPE ELBOWS, TYPE B ****MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH			(300MM, 1.63MM)
		FILL, STATION ************************************	4	EA	400MM BIT COAT CS PIPE ELBOWS,
Lump Sum	LS	REINFORCED BRIDGE APPROACH	2	EA	TYPE B 1.63MM THICK
•		FILL, STATION ********	2	EA	450MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
T 0		(396+40 LT LREV)	1	EA	600MM BIT COAT CS PIPE ELBOWS,
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********			TYPE B 1.63MM THICK
		(396+40 RT LREV)	2	EA	800MM BIT COAT CS PIPE ELBOWS, TYPE B 2.01MM THICK
6,500	M3	UNDERCUT EXCAVATION	99.6	M	PIPE REMOVAL
17,200	M3	DRAINAGE DITCH EXCAVATION	Lump Sum	LS	FINE GRADING
620	M	BERM DITCH CONSTRUCTION	1,500	MTN	STABILIZER AGGREGATE
3,900	M2	REMOVAL OF EXISTING ASPHALT PAVEMENT	37,300	MTN	AGGREGATE BASE COURSE
70	HR	PROOF ROLLING	6,675	MTN	AGGREGATE FOR CEMENT TREATED
2,010	M3	SELECT GRANULAR MATERIAL	250	MTNI	BASE COURSE PORTLAND CEMENT FOR CEMENT
2,000	M2	FABRIC FOR SOIL STABILIZATION	350	MTN	TREATED BASE COURSE
	MTN	SELECT MATERIAL, CLASS II	75	MTN	INCIDENTAL STONE BASE
1,185	MTN	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRS	37,100	M3	SHOULDER BORROW
76.8	M	300MM RC PIPE CULVERTS, CLASS	51,100	L	PRIME COAT
		III	32,160	MTN	ASPHALT CONC BASE COURSE, TYPE B25.0B
1,535.8	M	375MM RC PIPE CULVERTS, CLASS III	3,530	MTN	ASPHALT CONC BASE COURSE, TYPE B25.0C
602.8	M	450MM RC PIPE CULVERTS, CLASS III	10,570	MTN	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
991	M	600MM RC PIPE CULVERTS, CLASS III	4,880	MTN	
1,204.8	M	750MM RC PIPE CULVERTS, CLASS III	21,300	MTN	ASPHALT CONC SURFACE COURSE, TYPE \$9.5B
778.8	M	900MM RC PIPE CULVERTS, CLASS III	2,600	MTN	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
240	M	1050MM RC PIPE CULVERTS, CLASS III	5,765	MTN	ASPHALT CONC SURFACE COURSE, TYPE S12.5C
205.2	M	1200MM RC PIPE CULVERTS, CLASS III	3,650	MTN	ASPHALT BINDER FOR PLANT MIX,
94.8	M	1350MM RC PIPE CULVERTS, CLASS III	490	MTN	GRADE PG 64-22 ASPHALT BINDER FOR PLANT MIX,
90	M	*****MM RC PIPE CULVERTS, CLASS	50	MTN	GRADE PG 70-22 ASPHALT PLANT MIX PAVEMENT
		IV (1050MM)	50	WIIIN	REPAIR
81.6	M	****MM RC PIPE CULVERTS, CLASS	134,800	M2	***MM PORT CEM CONC PAVEMENT, THROUGH LANES (WITH DOWELS)
		IV (450MM)			(300MM)
111.6	M	****MM RC PIPE CULVERTS, CLASS IV	8,220	M2	***MM PORT CEM CONC PAVEMENT, RAMPS (WITH DOWELS)
		(750MM)	5,000	M2	(300MM) ***MM PORT CEM CONC PAVEMENT,
10.8	M	***MM CS PIPE CULVERTS, ****MM THICK	3,000	1112	MISCELLANEOUS (WITHOUT DOWELS)
		(1000MM, 2.01MM)			(300MM)
28.8	M	***MM CS PIPE CULVERTS, ****MM	Lump Sum	LS	SURFACE TESTING CONCRETE PAVE- MENT
		THICK (1200MM, 2.01MM)	69,870	M2	CONCRETE SHOULDERS ADJACENT TO
8.4	M	450MM CS PIPE CULVERTS, 1.63MM THICK			***MM PAVEMENT (300MM)
16.8	M	800MM CS PIPE CULVERTS, 2.01MM	Lump Sum	LS	FIELD LABORATORY RENTAL, PORT CEM CONC PAVEMENT
21.6	M	THICK 300MM BIT COAT CS PIPE CUL-	79	EA	RIGHT OF WAY MARKERS
21.0	./1	VERTS, TYPE B 1.63MM THICK	2,240	M3	SUBDRAIN EXCAVATION
147.6	M	400MM BIT COAT CS PIPE CUL-	1,120	M3	SUBDRAIN FINE AGGREGATE
		VERTS, TYPE B 1.63MM THICK	2,700	M	150MM PERFORATED SUBDRAIN PIPE

			2	М3	REINFORCED CONCRETE SIGN FOOT-
			2	M3	PLAIN CONCRETE SIGN FOOTINGS
270	EA	150MM SUBDRAIN PIPE WYES,	1,320	KG	SUPPORTS, BREAKAWAY STEEL BEAM
10	EA	TEES, & ELBOWS	537 890	KG	SUPPORTS, SIMPLE STEEL BEAM SUPPORTS, 4.5KG STEEL
18	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET	890	M	U-CHANNEL
36	M	150MM OUTLET PIPE (SUBDRAINS)	8	EA	SUPPORTS, 3KG STEEL U-CHANNEL
20,500	M	SHOULDER DRAIN	6	EA	SIGN ERECTION, TYPE D
20,500 1,300	M M	100MM SHOULDER DRAIN PIPE 100MM OUTLET PIPE (SHOULDER	98 14	EA EA	SIGN ERECTION, TYPE E SIGN ERECTION, TYPE F
1,300	IVI	DRAINS)	30	EA	SIGN ERECTION, TYPE *** (OVER-
65	EA	CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET			HEAD) (A)
20.2	M3	ENDWALLS	16	EA	SIGN ERECTION, TYPE *** (OVER- HEAD)
3.8 0.89	M3 M3	REINFORCED ENDWALLS PIPE COLLARS			(B)
122	EA	MASONRY DRAINAGE STRUCTURES	12	EA	SIGN ERECTION, TYPE ***
19.2	M	MASONRY DRAINAGE STRUCTURES			(GROUND MOUNTED) (A)
28	EA	FRAME WITH TWO GRATES, STD 840.****	38	EA	SIGN ERECTION, MILEMARKERS
		(840.20)	1	EA	SIGN ERECTION, OVERLAY (OVER-
86	EA	FRAME WITH TWO GRATES, STD 840.22	3	EA	HEAD) SIGN ERECTION, REPOSITION OVERHEAD
1	EA	FRAME WITH GRATE & HOOD, STD	1	EA	DISPOSAL OF SIGN SYSTEM, OVER-
2	Е.	840.03, TYPE ** (E)	3	EA	HEAD DISPOSAL OF SIGN SYSTEM, U-
2	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE **			CHANNEL
2	EA	(F) FRAME WITH GRATE & HOOD, STD	5	EA	DISPOSAL OF SIGN, A OR B (OVERHEAD)
		840.03, TYPE ** (G)	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN BENCH
1	EA	FRAME WITH COVER, STD 840.54	Lump Sum	LS	TEST UNIT GENERIC SIGNING ITEM
1,235 2,050	M M	750MM CONCRETE CURB & GUTTER SHOULDER BERM GUTTER	Zump bum	2.5	DYNAMIC MESSAGE SIGN MAIN-
2,030	EA	MODIFIED CONCRETE FLUME	I C	1.0	TENANCE TRAINING GENERIC SIGNING ITEM
315	M2	100MM CONCRETE SIDEWALK	Lump Sum	LS	DYNAMIC MESSAGE SIGN SYSTEM
25	M2	CONCRETE WHEELCHAIR RAMPS			DESIGN APPROVAL TESTS
30 328	M2 M2	150MM CONCRETE DRIVEWAY 100MM CONCRETE PAVED DITCH	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN SYSTEM
210	M2	125MM MONOLITHIC CONCRETE IS-			INTEGRATION
		LANDS (KEYED IN)	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN SYSTEM
482	M	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	Lump Sum	LS	NTCIP ACCEPTANCE TESTS GENERIC SIGNING ITEM
11	EA	IMPACT ATTENUATOR UNIT, TYPE 350	Earlip Sum	Lo	DYNAMIC MESSAGE SIGN SYSTEM OPERATIONAL FACTORY TESTS
6,311.265 49.53	M M	STEEL BM GUARDRAIL STEEL BM GUARDRAIL, SHOP	Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN SYSTEM
10	EA	CURVED ADDITIONAL GUARDRAIL POSTS	I C	1.0	OPERATIONAL FIELD TESTS
21	EA	GUARDRAIL ANCHOR UNITS, TYPE ************************************	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (A) GENERIC SIGNING ITEM
4	EA	(B-77)	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (C)
4	EA	GUARDRAIL ANCHOR UNITS, TYPE ************************* (B-83)	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (F)
2	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (G)
26	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (H)
14	EA	GUARDRAIL ANCHOR UNITS, TYPE III	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (K)
41	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (O)
4	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (P)
6	EA	GUARDRAIL ANCHOR UNITS, TYPE XI	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE
6	EA	GUARDRAIL ANCHOR UNITS, TYPE XI (MOD)	Lump Sum	LS	ASSEMBLY (DMS-1) GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE SIGN
3	EA	GUARDRAIL ANCHOR UNITS, TYPE XIII	Lump Sum	LS	ASSEMBLY (DMS-2) GENERIC SIGNING ITEM
5,300	M	CABLE GUIDERAIL	r		OVERHEAD DYNAMIC MESSAGE SIGN
28 11,575	EA M	CABLE GUIDERAIL ANCHOR UNITS WOVEN WIRE FENCE, 1200MM FAB-	Lump Sum	LS	SYSTEM (DMS-1) GENERIC SIGNING ITEM
2,325	EA	RIC 100MM TIMBER FENCE POSTS,			OVERHEAD DYNAMIC MESSAGE SIGN SYSTEM (DMS-2)
735	EA	2.30M LONG 125MM TIMBER FENCE POSTS,	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (A)
202		2.50M LONG	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (B)
300 870	M MTN	ADDITIONAL BARBED WIRE PLAIN RIP RAP, CLASS I	Lump Sum	LS	GENERIC SIGNING ITEM
	MTN	PLAIN RIP RAP, CLASS B			OVERHEAD SIGN ASSEMBLY (C)
6,302.3	M2	FILTER FABRIC FOR DRAINAGE	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (D)
4	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON			2.5(0)

245 M GENERIC PAVEMENT MARKING ITEM

			245	М	GENERIC PAVEMENT MARKING ITEM 300MM POLYUREA PAVEMENT MARK- ING LINES
I C	1.0	CENIEDIC CICNING ITEM	8	EA	GENERIC PAVEMENT MARKING ITEM
Lump Sum	LS LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (E) CENERIC SIGNING ITEM			POLYUREA PAVEMENT MARKING CHARACTER
Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (F) GENERIC SIGNING ITEM	15	EA	GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (G) GENERIC SIGNING ITEM	1,169	EA	SYMBOLS PERMANENT RAISED PAVEMENT MARKERS
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (H) GENERIC SIGNING ITEM	45	EA	FLEXIBLE DELINEATORS (CRYSTAL)
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (I) GENERIC SIGNING ITEM	32 25	EA EA	FLEXIBLE DELINEATORS (YELLOW) FLEXIBLE DELINEATORS (CRYSTAL
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (J) GENERIC SIGNING ITEM	25	EA	& RED) FLEXIBLE DELINEATORS (YELLOW &
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (K) GENERIC SIGNING ITEM	15	EA	RED) 30.5M HIGH MOUNT STANDARD
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (L) GENERIC SIGNING ITEM	4	EA EA	36.5M HIGH MOUNT STANDARD PORTABLE DRIVE UNIT
		OVERHEAD SIGN ASSEMBLY (M)	78	M3	HIGH MOUNT FOUNDATIONS
Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (N)	84	EA	HIGH MOUNT LUMINAIRES ******** (1KW, HPS)
Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (O)	71	EA	LIGHT STANDARD, TYPE MTLT
Lump Sum	LS	GENERIC SIGNING ITEM			(13.7M, SA 4.6M)
40	Ma	OVERHEAD SIGN ASSEMBLY (P)	63	EA	STANDARD FOUNDATIONS ******** (TYPE R1)
49 68	M2 M2	WORK ZONE SIGNS (STATIONARY) WORK ZONE SIGNS (PORTABLE)	23	EA	STANDARD FOUNDATIONS ********
15	M2	WORK ZONE SIGNS (BARRICADE MOUNTED)	7	EA	(TYPE R2) ELECTRIC SERVICE POLES ***
12	EA	FLASHING ARROW PANELS, TYPE C			******
2	EA	CHANGEABLE MESSAGE SIGNS	210	M	(9.1M, CLASS 4) ELECTRIC SERVICE LATERAL
6	EA	WARNING FLAG SETS	210	IVI	***********
100	EA	DRUMS			(3 #1/0, USE)
50 48	EA M	CONES BARRICADES (TYPE III)	7	EA	LIGHT CONTROL EQUIPMENT, TYPE RW *************
640	HR	FLAGGER			(240/480 VOLT)
26	EA	WARNING LIGHTS (TYPE B)	975	M	ELECTRICAL DUCT, TYPE BD, SIZE
4	EA	TRUCK MOUNTED IMPACT ATTENUA-			(TS2)
40	HR	TOR (45 MPH) POLICE	120	M	ELECTRICAL DUCT, TYPE BD, SIZE
295	EA	TUBULAR MARKERS (FIXED)			**** /TS2)
5,761	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (100MM)	360	M	(TS3) ELECTRICAL DUCT, TYPE JA, SIZE ****
4,461	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (150MM)	205	.,	(TS2)
244	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (200MM)	305	M	ELECTRICAL DUCT, TYPE JA, SIZE **** (TS3)
202	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (300MM)	115	M	**#8 W/G FEEDER CIRCUIT
8	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (600MM)	175	M	(2) **#6 W/G FEEDER CIRCUIT
26	EA	REMOVABLE TAPE PAVEMENT MARK- ING SYMBOL	280	M	(2) **#4 W/G FEEDER CIRCUIT
23	EA	TEMPORARY RAISED PAVEMENT MARKERS	230	M	(2) **#2 W/G FEEDER CIRCUIT
7,301	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 2.3MM)	4,245	M	(2) ***#8 W/G FEEDER CIRCUIT IN SIZE *** CONDUIT
6,059	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 3.1MM)	2,890	М	(2, TS1.5) ***#6 W/G FEEDER CIRCUIT IN
3,828	M	THERMOPLASTIC PAVEMENT MARKING LINES (150MM, 2.3MM)	2,070		SIZE *** CONDUIT (2, TS1.5)
1,050	M	THERMOPLASTIC PAVEMENT MARKING LINES (150MM, 3.1MM)	2,255	M	***#4 W/G FEEDER CIRCUIT IN SIZE *** CONDUIT
451	M	THERMOPLASTIC PAVEMENT MARKING LINES (200MM, 2.3MM)	555	M	(2, TS1.5) ***#2 W/G FEEDER CIRCUIT IN
1,075	M	THERMOPLASTIC PAVEMENT MARKING LINES (300MM, 2.3MM)			SIZE *** CONDUIT (2, TS1.5)
153	M	THERMOPLASTIC PAVEMENT MARKING LINES (600MM, 3.1MM)	33	EA	ELECTRICAL JUNCTION BOXES ************************************
115	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (2.3MM)	101	EA	(PC18) GENERIC LIGHTING ITEM
515	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (100MM)			LGT STD LUMINAIRE, TYPE RDW 400W HPS
228	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (150MM)	15	EA	GENERIC LIGHTING ITEM LGT STD, TYPE MTLT, 13.7M, TA
10	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (600MM)	35	MTN	4.6M FOUNDATION CONDITIONING MATE-
4,352	M	PAINT PAVEMENT MARKING LINES (100MM)	~~	MTN	RIAL, UTILITIES CLASS ******* (VI) PEDDING MATERIAL LITHERS
150	M	REMOVAL OF PAVEMENT MARKING LINES (100MM)	35	MIN	BEDDING MATERIAL, UTILITIES CLASS ***********************************
4,691	M	GENERIC PAVEMENT MARKING ITEM 150MM POLYUREA PAVEMENT MARK- ING LINES	10	MTN	PAVEMENT REPAIR FOR UTILITY WORK

			645 190	M M	TRENCHING (UNPAVED) DIRECTIONAL DRILL POLYETHYLENE CONDUIT, 31.75MM (** CONDUIT)
238	M	***MM DI WATER PIPE, CLASS	180	М	(1) TRENCH MULTI-DUCT, 31.75MM (**
		*********** WP (400MM, 50, 2.41MPA)	160	IVI	CONDUIT)
18	M	150MM DI WATER PIPE, CLASS	22	EA	(1)
		********** WP (50, 2.41MPA)	22 5	EA EA	JUNCTION BOX (STANDARD SIZE) JUNCTION BOX (OVER-SIZED)
398	M	300MM DI WATER PIPE, CLASS	1	EA	GUY ASSEMBLY
		************ WP	2	EA	50MM RISER WITH HEAT SHRINK
10	M	(50, 2.41MPA) 20MM COPPER WATER PIPE, TYPE K	1,260	M	TUBING INDUCTIVE LOOP SAWCUT
1,568	KG	DUCTILE IRON WATER PIPE FIT-	4,470	M	LEAD-IN CABLE
		TINGS, 1.72MPA MIN WP	1,205	M	COMMUNICATIONS CABLE (**FIBER)
3	EA	150MM GATE VALVE & VALVE BOX, 1.38MPA WP	4	Е.	(12)
2	EA	*** X ***MM TAPPING SLEEVE,	4	EA EA	INTERCONNECT CENTER FIBER-OPTIC TRANSCEIVER
		VALVE & VALVE BOX, ****MPA WP (300MM X 300MM)	5	EA	DELINEATOR MARKER
1	EA	RELOCATE EXISTING WATER METER	1	EA	FURNISH FIBER-OPTIC TRANSCEIV-
3	EA	RELOCATE EXISTING FIRE HYDRANT	13	EA	ER METAL STRAIN SIGNAL POLE
100	M	***MM DI SEWER PIPE, CLASS *** (200MM, 51)	13	EA	METAL SIGNAL POLE FOUNDATION
372	M	FILL OR REMOVE ABANDONED 300MM	3	EA	SIGNAL PEDESTAL WITH FOUNDA-
		PIPE, ********	11	EA	TION
68	M	(DI WATER) FILL OR REMOVE ABANDONED 400MM	11 13	EA EA	METAL STRAIN POLE DESIGN SIGN FOR SIGNALS
08	IVI	PIPE, ***********	3	EA	SIGNAL CABINET FOUNDATION
		(DI WATER)	2	EA	CABINET BASE ADAPTER
97	M	***MM STEEL ENCASEMENT PIPE, ****MM THICK, BY OPEN CUT	2	EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)
		(600MM, 6.25)	28	EA	DETECTOR CHANNEL (TYPE 2070L)
1	EA	GENERIC UTILITY ITEM BREAKDOWN & CAP EXISTING	1	EA	CONTROLLER WITH CABINET (NEMA
		MANHOLE			TS-2, TYPE 2 CONTROLLER, TYPE 1 CABINET, BASE MOUNTED)
5,600	M	TEMPORARY SILT FENCE	17	EA	DETECTOR CHANNEL (NEMA TS-2)
700	MTN	STONE FOR EROSION CONTROL, CLASS A	1	EA	CENTRAL COMPUTER
13,000	MTN	STONE FOR EROSION CONTROL,	1	EA	NOTEBOOK COMPUTER
		CLASS B	1	EA EA	PRINTER GENERIC SIGNAL ITEM
	MTN HA	SEDIMENT CONTROL STONE	1	LA	FIBER OPTIC SPLICE CABINET
50.5 2,625	KG	TEMPORARY MULCHING SEED FOR TEMPORARY SEEDING			(POLE MOUNTED)
21		FERTILIZER FOR TEMPORARY SEED-	2	EA	GENERIC SIGNAL ITEM MAST ARM FOR VIDEO SYSTEM
400		ING	1	EA	GENERIC SIGNAL ITEM
400 35	M EA	TEMPORARY SLOPE DRAINS INLET PROTECTION AT TEMPORARY			SITE SURVEY
33	2.1	SLOPE DRAINS			
60,000	M3	SILT EXCAVATION			****** BEGIN SCHEDULE AA ******
6,000 15,000	M2 M2	SYNTHETIC ROVING MATTING FOR EROSION CONTROL	CC 475	1.60	******* (2 ALTERNATES) *******
305	M2	PERMANENT SOIL REINFORCEMENT	66,475	NI2	LIME TREATED SOIL (SLURRY METHOD)
		MAT	735	MTN	LIME FOR LIME TREATED SOIL
550 1	M EA	6.4MM HARDWARE CLOTH ***X ***X***MM PERFORATED CS	199,435	M2	***MM SOIL CEMENT BASE (180MM)
1	LA	PIPE TEE RISER, 2.01MM THICK	6,000	MTN	PORTLAND CEMENT FOR SOIL CE-
		(1000MM X 1000MM X 1000MM)			MENT BASE
2	EA	***X ***X***MM PERFORATED CS PIPE TEE RISER, 2.01MM THICK			AGGREGATE FOR SOIL CEMENT BASE
		(1200MM X 1200MM X 1200MM)	180,850	L MTN	ASPHALT CURING SEAL BLOTTING SAND
180	M3 EA	STILLING BASINS			*** OR ***
36 62.5	HA	SPECIAL STILLING BASINS SEEDING & MULCHING	130,000	MTN	GENERIC PAVING ITEM
27.5	HA	MOWING			AGGREGATE BASE COURSE FOR STABILIZATION
600	KG	SEED FOR REPAIR SEEDING			
	MTN KG	FERTILIZER FOR REPAIR SEEDING			*** END SCHEDULE AA ***
1,750 104.5	MTN	SEED FOR SUPPLEMENTAL SEEDING FERTILIZER TOPDRESSING			****** BEGIN SCHEDULE HA ****** ****** (2 ALTERNATES) ******
1.5	HA	SPECIALIZED SEEDING UNDER	4	EA	GENERIC SIGNAL ITEM
		GUIDERAIL & GUARDRAIL (CENTI- PEDE)			CAMERA WITH INTERNAL LOOP
105	M	IMPERVIOUS DIKE			EMULATOR PROCESSING UNIT *** OR ***
80	HR	SPECIALIZED HAND MOWING	4	EA	GENERIC SIGNAL ITEM
24	EA	RESPONSE FOR EROSION CONTROL			CAMERA WITHOUT INTERNAL LOOP EMULATOR PROCESSING UNIT
420 5.75	M3 HA	CULVERT DIVERSION CHANNEL REFORESTATION	1	EA	
3.73	EA	GENERIC EROSION CONTROL ITEM	•		EXTERNAL LOOP EMULATOR
		DRY DETENTION BASIN			PROCESSING UNIT
60	MTN	GENERIC EROSION CONTROL ITEM BOULDERS			*** END SCHEDULE HA ***
1,135	M	SIGNAL CABLE			CULVERT ITEMS
34	EA	VEHICLE SIGNAL HEAD (300MM, 3			COLVENT HEAVING
30	M	SECTION) MESSENGER CARLE (6.35MM)	• -	1.0	CHI VEDIT EVOLVATION CT.
750	M	MESSENGER CABLE (6.35MM) MESSENGER CABLE (9.52MM)	Lump Sum	LS	CULVERT EXCAVATION, STA ****** (369+15.500 -LREV-)
345	M	TRACER WIRE			·

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Lump Sum LS CULVERT EXCAVATION, STA ******

(389+42.200 -LREV-)

544.5 MTN FOUNDATION CONDITIONING MATER-

IAL, BOX CULVERT

1,001.5 M3 CLASS A CONCRETE (CULVERT)

 $70{,}140 \quad \text{KG} \quad \text{REINFORCING STEEL (CULVERT)}$

STRUCTURE ITEMS

CONSTRUCTION, MAINTENANCE, & Lump Sum LS

REMOVAL OF TEMP ACCESS AT STA

(396+37.050 -LREV-RT)

FOUNDATION EXCAVATION FOR BENT Lump Sum LS

** AT STATION ***** (1,363+53.676 -LREV-)

Lump Sum LS FOUNDATION EXCAVATION FOR BENT

** AT STATION ****** (1.408+42.504 -LREV-)

223.6 M ****MM DIA DRILLED PIERS IN

SOIL.

(1220MM)

144 M ****MM DIA DRILLED PIERS NOT

IN SOIL

(1220MM)

PERMANENT STEEL CASING FOR

****MM DRILLED PIER

(1220MM)

8 EA SID INSPECTION

8 EA SPT TESTING

EA CROSSHOLE SONIC LOGGING

1,579.2 M CSL TUBES

78.6

11.801.9 M2 REINFORCED CONCRETE DECK SLAB

10,357.3 M2 GROOVING BRIDGE FLOORS

822.8 M3 CLASS A CONCRETE (BRIDGE)

Lump Sum BRIDGE APPROACH SLABS, STATION

(353+71.453 -L-) BRIDGE APPROACH SLABS, STATION Lump Sum LS

(353+72.854 -L-)

BRIDGE APPROACH SLABS, STATION

Lump Sum LS

(363+53.676 -LREV-)

Lump Sum LS BRIDGE APPROACH SLABS, STATION

(396+37.050 -LREV-LT)

BRIDGE APPROACH SLABS, STATION Lump Sum LS

(396+37.050 -LREV-RT)

BRIDGE APPROACH SLABS, STATION Lump Sum LS

(408+42.504 -LREV-)

102 538 KG REINFORCING STEEL (BRIDGE) 18,115 KG

SPIRAL COLUMN REINFORCING STEEL (BRIDGE)

MODIFIED 1600MM PRESTRESSED

CONC GIRDERS

APPROX KG STRUCTURAL 1,884,600 LS

STEEL

2,296 M

HP310X79 STEEL PILES 1,226 M

STEEL PILE POINTS 36 EA

143 282 M THREE BAR METAL RAIL

1,171.013 M CONCRETE BARRIER RAIL

737 M2 100MM SLOPE PROTECTION 2.292 MTN PLAIN RIP RAP CLASS II (600MM

THICK)

2,338 M2 FILTER FABRIC FOR DRAINAGE

POT BEARINGS Lump Sum LS

Lump Sum LS ELASTOMERIC BEARINGS

Lump Sum LS EVAZOTE JOINT SEALS

Lump Sum LS MODULAR EXPANSION JOINT SEALS Lump Sum LS ELECTRICAL CONDUIT SYSTEM, STA

(353+71.453 -L-)

Lump Sum LS ELECTRICAL CONDUIT SYSTEM, STA

(353+72.854 -L-)

Lump Sum LS ELECTRICAL CONDUIT SYSTEM, STA

(396+37.050 -LREV-RT)

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L030722 003

FEDERAL AID PROPOSAL, CONTRACTOR LICENSE NOT REQUIRED TO BID

CONTRACT ID: C200869 34365.3.40 DIV OFFICE DURHAM LENGTH = 11.690 KM

COUNTY : WAKE

 ${\bf GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS~\&~STRUCTURES.}$

DBE GOAL 10.0% COMPLETION DATE: APR 15 2006

I-540 (NORTHERN WAKE EXPRESSWAY) FROM EAST OF US-1 SOUTH OF PERRY CREEK RD TO US-64 EAST OF KNIGHTDALE.

		ROADWAY ITEMS	90	M	****MM RC PIPE CULVERTS, CLASS IV (1050MM)
I C	1.0	MODILIZATION	81.6	M	****MM RC PIPE CULVERTS, CLASS
Lump Sum Lump Sum	LS LS	MOBILIZATION CONSTRUCTION SURVEYING			IV
Lump Sum	LS	CLEARING & GRUBBING HEC-			(450MM)
Lump Sum	LO	TARE(S)	111.6	M	****MM RC PIPE CULVERTS, CLASS IV
4	HA	SUPPLEMENTARY CLEARING & GRUB-			(750MM)
		BING	122.4	M	****MM RC PIPE CULVERTS, CLASS
11	EA	SEALING ABANDONED WELLS			IV
2,289,800	M3	UNCLASSIFIED EXCAVATION			(900MM)
Lump Sum	LS	REINFORCED BRIDGE APPROACH	216	M	150MM CS PIPE CULVERTS, 1.63MM
		FILL, STATION ************************************	10.8	м	THICK (SPRING BOX)
Lump Sum	LS	REINFORCED BRIDGE APPROACH	10.8	M	***MM CS PIPE CULVERTS, ****MM THICK
•		FILL, STATION *********			(1000MM, 2.01MM)
		(12+99.50)	28.8	M	***MM CS PIPE CULVERTS, ****MM
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION *********			THICK
		(13+85.173 Y1REV)	30	M	(1200MM, 2.01MM) 400MM CS PIPE CULVERTS, 1.63MM
Lump Sum	LS	REINFORCED BRIDGE APPROACH	30	141	THICK
•		FILL, STATION ********	8.4	M	450MM CS PIPE CULVERTS, 1.63MM
		(16+53.916)			THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********	39.6	M	600MM CS PIPE CULVERTS, 1.63MM
		(396+40 LT LREV)	27.2		THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	37.2	M	800MM CS PIPE CULVERTS, 2.01MM THICK
•		FILL, STATION ********	21.6	M	300MM BIT COAT CS PIPE CUL-
		(396+40 RT LREV)			VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********	396	M	400MM BIT COAT CS PIPE CUL-
		(445+88.00-LT)			VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	96	M	450MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
		FILL, STATION ********	72	M	600MM BIT COAT CS PIPE CUL-
44.500		(445+88.00-RT)	,,2	.,,	VERTS, TYPE B 1.63MM THICK
14,500	M3	UNDERCUT EXCAVATION	98.4	M	800MM BIT COAT CS PIPE CUL-
2,400	MTN	CLASS IV SUBGRADE STABILIZA- TION			VERTS, TYPE B 2.01MM THICK
25,490	M3	DRAINAGE DITCH EXCAVATION	20.4	M	900MM BIT COAT CS PIPE CUL-
620	M	BERM DITCH CONSTRUCTION	19.2	M	VERTS, TYPE B 2.01MM THICK 1000MM BIT COAT CS PIPE CUL-
12,900	M2	REMOVAL OF EXISTING ASPHALT	17.2	IVI	VERTS, TYPE B 2.77MM THICK
		PAVEMENT	9.6	M	1200MM BIT COAT CS PIPE CUL-
1,150	M2	BREAKING OF EXISTING ASPHALT			VERTS, TYPE B 2.77MM THICK
142	HR	PAVEMENT PROOF ROLLING	2	EA	***MM BIT COAT CS PIPE ELBOWS,
6,035	M3	SELECT GRANULAR MATERIAL			TYPE B ****MM THICK (1000MM, 2.77MM)
6,000	M2	FABRIC FOR SOIL STABILIZATION	2	EA	***MM BIT COAT CS PIPE ELBOWS,
500	M2	TEMPORARY SHORING			TYPE B ****MM THICK
285	M2	GENERIC GRADING ITEM			(300MM, 1.63MM)
		ROCK PLATING	26	EA	400MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
2,680		SELECT MATERIAL, CLASS II	10	EA	450MM BIT COAT CS PIPE ELBOWS,
3,435	MTN	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRS	10	2	TYPE B 1.63MM THICK
93.6	M	375MM SIDE DRAIN PIPE	3	EA	600MM BIT COAT CS PIPE ELBOWS,
76.8	M	300MM RC PIPE CULVERTS, CLASS			TYPE B 1.63MM THICK
		III	2	EA	800MM BIT COAT CS PIPE ELBOWS,
4,061.8	M	375MM RC PIPE CULVERTS, CLASS	424.4	M	TYPE B 2.01MM THICK PIPE REMOVAL
		III	5	EA	PIPE CLEAN-OUT
1,454	M	450MM RC PIPE CULVERTS, CLASS III	350	M2	150MM SLOPE PROTECTION
2,386.6	M	600MM RC PIPE CULVERTS, CLASS	Lump Sum	LS	FINE GRADING
2,500.0		III	2,500	MTN	STABILIZER AGGREGATE
2,377.2	M	750MM RC PIPE CULVERTS, CLASS	75,400	MTN	AGGREGATE BASE COURSE
		III	6,675	MTN	AGGREGATE FOR CEMENT TREATED
1,063.2	M	900MM RC PIPE CULVERTS, CLASS III	950	1 m	BASE COURSE
349.2	M	1050MM RC PIPE CULVERTS, CLASS	350	MTN	PORTLAND CEMENT FOR CEMENT TREATED BASE COURSE
347.2	141	III	155	MTN	INCIDENTAL STONE BASE
253.2	M	1200MM RC PIPE CULVERTS, CLASS	57,685	M3	SHOULDER BORROW
		III	62,800	L	PRIME COAT
159.6	M	1350MM RC PIPE CULVERTS, CLASS	4,130	M2	INCIDENTAL MILLING
15 /	M	III 1650MM RC PIPE CULVERTS, CLASS	59,060	MTN	
15.6	1/1	III			B25.0B

			2 490	EA M	MODIFIED CONCRETE FLUME CONCRETE EXPRESSWAY GUTTER
			315	M2	100MM CONCRETE SIDEWALK
26,130	MTN	ASPHALT CONC BASE COURSE, TYPE	25	M2	CONCRETE WHEELCHAIR RAMPS
		B25.0C	48.4	M2	150MM CONCRETE DRIVEWAY
11,240	MTN	ASPHALT CONC INTERMEDIATE	455	M2	100MM CONCRETE PAVED DITCH
24,980	MTN	COURSE, TYPE 119.0B ASPHALT CONC INTERMEDIATE	1,310	M2	125MM MONOLITHIC CONCRETE IS- LANDS (SURFACE MOUNTED)
33,075	MTN	COURSE, TYPE 119.0C ASPHALT CONC SURFACE COURSE,	210	M2	125MM MONOLITHIC CONCRETE IS- LANDS (KEYED IN)
2,600	MTN	TYPE S9.5B ASPHALT CONC SURFACE COURSE,	597	M	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED
18,515	MTN	TYPE S9.5C ASPHALT CONC SURFACE COURSE,	25	EA	IMPACT ATTENUATOR UNIT, TYPE 350
7,410	MTN	TYPE S12.5C ASPHALT BINDER FOR PLANT MIX,	11,584.305 83.82	M M	STEEL BM GUARDRAIL STEEL BM GUARDRAIL, SHOP
1,195	MTN	GRADE PG 64-22 ASPHALT BINDER FOR PLANT MIX,	8	EA	CURVED STEEL BM GUARDRAIL TERMINAL
100	MTN	GRADE PG 70-22 ASPHALT PLANT MIX PAVEMENT	20	EA	SECTIONS ADDITIONAL GUARDRAIL POSTS
		REPAIR	29	EA	GUARDRAIL ANCHOR UNITS, TYPE
265,890	M2	***MM PORT CEM CONC PAVEMENT, THROUGH LANES (WITH DOWELS)			**************************************
0.220	1.62	(300MM)	4	EA	GUARDRAIL ANCHOR UNITS, TYPE
8,220	M2	***MM PORT CEM CONC PAVEMENT, RAMPS (WITH DOWELS)			******
		(300MM)			(B-83)
11.810	M2	***MM PORT CEM CONC PAVEMENT,	2	EA	GUARDRAIL ANCHOR UNITS, TYPE
,		MISCELLANEOUS (WITHOUT DOWELS)			AT-1
		(300MM)	42	EA	GUARDRAIL ANCHOR UNITS, TYPE
Lump Sum	LS	SURFACE TESTING CONCRETE PAVE-	26	EA	CAT-1
		MENT	26	EA	GUARDRAIL ANCHOR UNITS, TYPE III
140,300	M2	CONCRETE SHOULDERS ADJACENT TO ***MM PAVEMENT	65	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
Lump Sum	LS	(300MM) FIELD LABORATORY RENTAL, PORT	6	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350
242	г.	CEM CONC PAVEMENT	6	EA	GUARDRAIL ANCHOR UNITS, TYPE
242	EA	RIGHT OF WAY MARKERS			XI
5,966	M3	SUBDRAIN EXCAVATION	6	EA	GUARDRAIL ANCHOR UNITS, TYPE
2,983	M3	SUBDRAIN FINE AGGREGATE			XI (MOD)
4,500	M	100MM PERFORATED SUBDRAIN PIPE	3	EA	GUARDRAIL ANCHOR UNITS, TYPE
2,700	M	150MM PERFORATED SUBDRAIN PIPE			XIII
450	EA	100MM SUBDRAIN PIPE WYES, TEES, & ELBOWS	130	M	REMOVE EXISTING GUARDRAIL
270	EA	150MM SUBDRAIN PIPE WYES,	53.34	M	TEMPORARY STEEL BM GUARDRAIL
48	EA	TEES, & ELBOWS CONCRETE PAD FOR SUBDRAIN PIPE	1	EA	GUARDRAIL ANCHOR UNITS, TYPE 350 TEMPORARY
.0		OUTLET	10,586.06	M	CABLE GUIDERAIL
60	M	100MM OUTLET PIPE (SUBDRAINS)	52	EA	CABLE GUIDERAIL ANCHOR UNITS
36	M	150MM OUTLET PIPE (SUBDRAINS)	24,100	M	WOVEN WIRE FENCE, 1200MM FAB- RIC
41,100	M	SHOULDER DRAIN	4,747	EA	100MM TIMBER FENCE POSTS,
41,100	M	100MM SHOULDER DRAIN PIPE	7,777	Lit	2.30M LONG
3,450	M	100MM OUTLET PIPE (SHOULDER DRAINS)	1,685	EA	125MM TIMBER FENCE POSTS, 2.50M LONG
165	EA	CONCRETE PAD FOR SHOULDER	900	M	ADDITIONAL BARBED WIRE
		DRAIN PIPE OUTLET	1,320	MTN	PLAIN RIP RAP, CLASS I
38.6	M3	ENDWALLS	1,265	MTN	PLAIN RIP RAP, CLASS II
7.6	M3	REINFORCED ENDWALLS	2,295	MTN	PLAIN RIP RAP, CLASS B
1.18	M3	PIPE COLLARS	16,052.3	M2	FILTER FABRIC FOR DRAINAGE
0.36	M3	PIPE PLUGS	6	EA	PREFORMED SCOUR HOLES WITH
262	EA	MASONRY DRAINAGE STRUCTURES			LEVEL SPREADER APRON
7.37	M3	MASONRY DRAINAGE STRUCTURES	4	M3	REINFORCED CONCRETE SIGN FOOT-
52.371	M	MASONRY DRAINAGE STRUCTURES			INGS
6	EA	FRAME WITH GRATE, STD 840.22	3	M3	PLAIN CONCRETE SIGN FOOTINGS
44	EA	FRAME WITH TWO GRATES, STD 840.****	2,321	KG	SUPPORTS, BREAKAWAY STEEL BEAM
		(840.20)	826	KG	SUPPORTS, SIMPLE STEEL BEAM
1	EA	FRAME WITH TWO GRATES, STD	1,431	M	SUPPORTS, 4.5KG STEEL
•	Lit	840.16	14	Е.	U-CHANNEL
180	EA	FRAME WITH TWO GRATES, STD	14 14	EA EA	SUPPORTS, 3KG STEEL U-CHANNEL
		840.22	157	EA	SIGN ERECTION, TYPE D SIGN ERECTION, TYPE E
2	EA	FRAME WITH TWO GRATES, STD	17	EA	SIGN ERECTION, TYPE F
		840.24	47	EA	SIGN ERECTION, TYPE *** (OVER-
4	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE **	47	LA	HEAD) (A)
-	EA	(E)	23	EA	SIGN ERECTION, TYPE *** (OVER-
5	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE **			HEAD)
		(F)			(B)
9	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE **	15	EA	SIGN ERECTION, TYPE *** (GROUND MOUNTED)
		(G)			(A)
1	EA	FRAME WITH COVER, STD 840.54	4	EA	SIGN ERECTION, TYPE ***
3	EA	STEEL FRAME WITH TWO GRATES,			(GROUND MOUNTED)
,	-	STD 840.37	***	г.	(B)
1,619	M	750MM CONCRETE CURB & GUTTER	68	EA	SIGN ERECTION, MILEMARKERS
2,990	M	SHOULDER BERM GUTTER	1	EA	SIGN ERECTION, OVERLAY (OVER- HEAD)

			Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (J)
3	EA	SIGN ERECTION, REPOSITION	Lump Sum	LS	FOR R-2000G GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (K)
1	EA	OVERHEAD RELOCATE SIGN, TYPE *****	Lump Sum	LS	FOR R-2000F GENERIC SIGNING ITEM
3	EA	(D) RELOCATE SIGN, TYPE *****	Lamp Sum	LO	LRS LIGHTING SYSTEM (O) FOR R-2000F
1	EA	(E) DISPOSAL OF SIGN SYSTEM, OVER- HEAD	Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (P)
3	EA	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	Lump Sum	LS	FOR R-2000F GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE
42	EA	DISPOSAL OF SIGN SYSTEM, U- CHANNEL	Lump Sum	LS	ASSEMBLY (DMS-1) GENERIC SIGNING ITEM
3	EA	DISPOSAL OF SUPPORT, U-CHANNEL	Lump Sum	LO	OVERHEAD DYNAMIC MESSAGE SIGN
5	EA	DISPOSAL OF SIGN, A OR B			ASSEMBLY (DMS-2)
Lump Sum	LS	(OVERHEAD) GENERIC SIGNING ITEM DVNIAMIC MESS ACE SIGNI BENCH	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE SIGN
		DYNAMIC MESSAGE SIGN BENCH TEST UNIT FOR R-2000F	Lump Sum	LS	ASSEMBLY (DMS-4) GENERIC SIGNING ITEM
Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN BENCH	Zamp Sam	25	OVERHEAD DYNAMIC MESSAGE SIGN SYSTEM (DMS-1)
		TEST UNIT FOR R-2000G	Lump Sum	LS	GENERIC SIGNING ITEM
Lump Sum	LS	GENERIC SIGNING ITEM			OVERHEAD DYNAMIC MESSAGE SIGN
		DYNAMIC MESSAGE SIGN MAIN- TENANCE TRAINING FOR R-2000F			SYSTEM (DMS-2)
Lump Sum	LS	GENERIC SIGNING ITEM	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD DYNAMIC MESSAGE SIGN
Zump zum	2.0	DYNAMIC MESSAGE SIGN MAIN-			SYSTEM (DMS-3)
		TENANCE TRAINING FOR R-2000G	Lump Sum	LS	GENERIC SIGNING ITEM
Lump Sum	LS	GENERIC SIGNING ITEM			OVERHEAD DYNAMIC MESSAGE SIGN
		DYNAMIC MESSAGE SIGN SYSTEM DESIGN APPROVAL TESTS FOR			SYSTEM (DMS-4)
		R-2000F	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD DYNAMOC MESSAGE SIGN
Lump Sum	LS	GENERIC SIGNING ITEM			ASSEMBLY (DMS-3)
		DYNAMIC MESSAGE SIGN SYSTEM	Lump Sum	LS	GENERIC SIGNING ITEM
		DESIGN APPROVAL TESTS FOR R-2000G			OVERHEAD SIGN ASSEMBLY (A)
Lump Sum	LS	GENERIC SIGNING ITEM	I C	LS	FOR R-2000F
Zump zum	2.0	DYNAMIC MESSAGE SIGN SYSTEM	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (A)
		INTEGRATION FOR R-2000F			FOR R-2000G
Lump Sum	LS	GENERIC SIGNING ITEM	Lump Sum	LS	GENERIC SIGNING ITEM
		DYNAMIC MESSAGE SIGN SYSTEM INTEGRATION FOR R-2000G			OVERHEAD SIGN ASSEMBLY (B)
Lump Sum	LS	GENERIC SIGNING ITEM	Lump Sum	LS	FOR R-2000F GENERIC SIGNING ITEM
•		DYNAMIC MESSAGE SIGN SYSTEM	Zamp Sum	Lo	OVERHEAD SIGN ASSEMBLY (B)
		NTCIP ACCEPTANCE TESTS FOR R-2000F			FOR R-2000G
Lump Sum	LS	GENERIC SIGNING ITEM	Lump Sum	LS	GENERIC SIGNING ITEM
Zump Sum	2.0	DYNAMIC MESSAGE SIGN SYSTEM			OVERHEAD SIGN ASSEMBLY (C) FOR R-2000F
		NTCIP ACCEPTANCE TESTS FOR	Lump Sum	LS	GENERIC SIGNING ITEM
I C	1.0	R-2000G GENERIC SIGNING ITEM	_		OVERHEAD SIGN ASSEMBLY (C)
Lump Sum	LS	DYNAMIC MESSAGE SIGN SYSTEM			FOR R-2000G
		OPERATIONAL FACTORY TESTS FOR	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (D)
		R-2000F			FOR R-2000F
Lump Sum	LS	GENERIC SIGNING ITEM DYNAMIC MESSAGE SIGN SYSTEM	Lump Sum	LS	GENERIC SIGNING ITEM
		OPERATIONAL FACTORY TESTS FOR			OVERHEAD SIGN ASSEMBLY (D)
		R-2000G	Lump Sum	LS	FOR R-2000G GENERIC SIGNING ITEM
Lump Sum	LS	GENERIC SIGNING ITEM	Zamp Sum	Lo	OVERHEAD SIGN ASSEMBLY (E)
		DYNAMIC MESSAGE SIGN SYSTEM OPERATIONAL FIELD TESTS FOR			FOR R-2000F
		R-2000F	Lump Sum	LS	GENERIC SIGNING ITEM
Lump Sum	LS	GENERIC SIGNING ITEM			OVERHEAD SIGN ASSEMBLY (F) FOR R-2000F
		DYNAMIC MESSAGE SIGN SYSTEM ODER ATION ALL FIELD TESTS FOR	Lump Sum	LS	GENERIC SIGNING ITEM
		OPERATIONAL FIELD TESTS FOR R-2000G	_		OVERHEAD SIGN ASSEMBLY (F)
Lump Sum	LS	GENERIC SIGNING ITEM			FOR R-2000G
		LRS LIGHTING SYSTEM (A)	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (G)
		FOR R-2000F			FOR R-2000F
Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (C)	Lump Sum	LS	GENERIC SIGNING ITEM
		FOR R-2000F			OVERHEAD SIGN ASSEMBLY (G)
Lump Sum	LS	GENERIC SIGNING ITEM	Lump Sum	LS	FOR R-2000G GENERIC SIGNING ITEM
		LRS LIGHTING SYSTEM (F)	Lump Sum	Lo	OVERHEAD SIGN ASSEMBLY (H)
Lump Sum	LS	FOR R-2000F GENERIC SIGNING ITEM			FOR R-2000F
Lump Sum	Lo	LRS LIGHTING SYSTEM (F)	Lump Sum	LS	GENERIC SIGNING ITEM
		FOR R-2000G			OVERHEAD SIGN ASSEMBLY (H) FOR R-2000G
Lump Sum	LS	GENERIC SIGNING ITEM	Lump Sum	LS	GENERIC SIGNING ITEM
		LRS LIGHTING SYSTEM (G) FOR R-2000F			OVERHEAD SIGN ASSEMBLY (I)
Lump Sum	LS	GENERIC SIGNING ITEM			FOR R-2000F
		LRS LIGHTING SYSTEM (H)	Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (I)
		FOR R-2000F			FOR R-2000G
Lump Sum	LS	GENERIC SIGNING ITEM LRS LIGHTING SYSTEM (I)	Lump Sum	LS	GENERIC SIGNING ITEM
		FOR R-2000G			OVERHEAD SIGN ASSEMBLY (J)
					FOR R-2000F

			26,364	M	PAINT PAVEMENT MARKING LINES (100MM)
			9,386	M	PAINT PAVEMENT MARKING LINES
Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (J)	1,092	M	(150MM) PAINT PAVEMENT MARKING LINES
Lump Sum	LS	FOR R-2000G GENERIC SIGNING ITEM	308	M	(200MM) PAINT PAVEMENT MARKING LINES
		OVERHEAD SIGN ASSEMBLY (K) FOR R-2000F	84	EA	(600MM) PAINT PAVEMENT MARKING SYMBOL
Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (L)	983	M	REMOVAL OF PAVEMENT MARKING LINES (100MM)
Lump Sum	LS	FOR R-2000F GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (M)	48,598	M	GENERIC PAVEMENT MARKING ITEM 150MM POLYUREA PAVEMENT MARK- ING LINES
Lump Sum	LS	FOR R-2000F GENERIC SIGNING ITEM	1,945	M	GENERIC PAVEMENT MARKING ITEM 300MM POLYUREA PAVEMENT MARK-
Lump Sum	LS	OVERHEAD SIGN ASSEMBLY (N) FOR R-2000F GENERIC SIGNING ITEM	8	EA	ING LINES GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING
Zump Jum	20	OVERHEAD SIGN ASSEMBLY (O) FOR R-2000F	35	EA	CHARACTER GENERIC PAVEMENT MARKING ITEM
Lump Sum	LS	GENERIC SIGNING ITEM OVERHEAD SIGN ASSEMBLY (P) FOR R-2000F	2.402		POLYUREA PAVEMENT MARKING SYMBOLS
123	M2	WORK ZONE SIGNS (STATIONARY)	2,183	EA	PERMANENT RAISED PAVEMENT MARKERS
134	M2	WORK ZONE SIGNS (PORTABLE)	140	EA	FLEXIBLE DELINEATORS (CRYSTAL)
43	M2	WORK ZONE SIGNS (BARRICADE	80	EA	FLEXIBLE DELINEATORS (YELLOW)
14	EA	MOUNTED) FLASHING ARROW PANELS, TYPE C	45	EA	FLEXIBLE DELINEATORS (CRYSTAL & RED)
4	EA	CHANGEABLE MESSAGE SIGNS	45	EA	FLEXIBLE DELINEATORS (YELLOW &
10	EA	WARNING FLAG SETS			RED)
260	EA	DRUMS	9	EA	OBJECT MARKERS (END OF ROAD)
100	EA	CONES	15	EA	30.5M HIGH MOUNT STANDARD
126	M	BARRICADES (TYPE III)	4	EA	36.5M HIGH MOUNT STANDARD
1,360	HR	FLAGGER	1 78	EA M3	PORTABLE DRIVE UNIT HIGH MOUNT FOUNDATIONS
36 4	EA EA	WARNING LIGHTS (TYPE B) TEMPORARY CRASH CUSHIONS	84	EA	HIGH MOUNT LUMINAIRES *******
3	EA	RESET TEMPORARY CRASH CUSHIONS		2.1	(1KW, HPS)
6	EA	TRUCK MOUNTED IMPACT ATTENUA- TOR (45 MPH)	71	EA	LIGHT STANDARD, TYPE MTLT ***********************************
352 391	M M	PORTABLE CONCRETE BARRIER PORTABLE CONCRETE BARRIER	63	EA	(13.7M, SA 4.6M) STANDARD FOUNDATIONS ********
352	M	(ANCHORED) PORTABLE CONCRETE BARRIER	23	EA	(TYPE R1) STANDARD FOUNDATIONS ******** (TYPE R2)
375	M	(DRAINAGE) RESET PORTABLE CONCRETE BAR-	7	EA	ELECTRIC SERVICE POLES *** ********
88	HR	RIER POLICE	210	M	(9.1M, CLASS 4) ELECTRIC SERVICE LATERAL
408	EA	TUBULAR MARKERS (FIXED)	210	M	******
6,160	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (100MM)	7	EA	(3 #1/0, USE) LIGHT CONTROL EQUIPMENT, TYPE
4,461	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (150MM)			RW ************************************
244	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (200MM)	975	M	ELECTRICAL DUCT, TYPE BD, SIZE ****
202	M	REMOVABLE TAPE PAVEMENT MARK- ING LINES (300MM)	120	M	(TS2) ELECTRICAL DUCT, TYPE BD, SIZE
8	M	REMOVABLE TAPE PAVEMENT MARK-			**** (TS3)
26	EA	ING LINES (600MM) REMOVABLE TAPE PAVEMENT MARK-	360	M	ELECTRICAL DUCT, TYPE JA, SIZE ****
337	EA	ING SYMBOL TEMPORARY RAISED PAVEMENT			**** (TS2)
21,179	M	MARKERS THERMOPLASTIC PAVEMENT MARKING	305	M	ELECTRICAL DUCT, TYPE JA, SIZE ****
11,838	M	LINES (100MM, 2.3MM) THERMOPLASTIC PAVEMENT MARKING	115	M	(TS3) **#8 W/G FEEDER CIRCUIT (2)
3,828	M	LINES (100MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING	175	M	**#6 W/G FEEDER CIRCUIT (2)
1,050	M	LINES (150MM, 2.3MM) THERMOPLASTIC PAVEMENT MARKING LINES (150MM, 3.1MM)	280	M	**#4 W/G FEEDER CIRCUIT (2)
1,650	M	THERMOPLASTIC PAVEMENT MARKING LINES (200MM, 2.3MM)	230	M	**#2 W/G FEEDER CIRCUIT (2)
1,075	M	THERMOPLASTIC PAVEMENT MARKING LINES (300MM, 2.3MM)	4,245	M	***#8 W/G FEEDER CIRCUIT IN SIZE *** CONDUIT
369	M	THERMOPLASTIC PAVEMENT MARKING LINES (600MM, 3.1MM)	2,890	M	(2, TS1.5) ***#6 W/G FEEDER CIRCUIT IN
211	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (2.3MM)	2255		SIZE *** CONDUIT (2, TS1.5)
1,831	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (100MM)	2,255	M	***#4 W/G FEEDER CIRCUIT IN SIZE *** CONDUIT (2, TS1.5)
228	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (150MM)	555	M	***#2 W/G FEEDER CIRCUIT IN SIZE *** CONDUIT
20	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (600MM)		_	(2, TS1.5)
4	EA	COLD APPLIED PLASTIC PAVEMENT MARKING SYMBOL	33	EA	ELECTRICAL JUNCTION BOXES ************ (PC18)

				1	EA	***X ***X***MM PERFORATED CS PIPE TEE RISER, 2.01MM THICK (1000MM X 1000MM X 1000MM)
B	101	EA	LGT STD LUMINAIRE, TYPE RDW	2	EA	PIPE TEE RISER, 2.01MM THICK
LOT STO, TYPE MILE, LETMA TA	15	EΛ		890	M3	
1906 MINOS ATTON CONSTRUCTIONS MATE 1.62	13	LA		84	EA	SPECIAL STILLING BASINS
PACE			4.6M	154.5	HA	SEEDING & MULCHING
12 MTN BEDDING MATERIAL, UTILITIES 1.35 MTN PREFILEZAR NOR REPARA SEEDING 1.25 MTN PREFILEZAR FOR PUTILITY 2.6 MTN PREFILE	182	MTN		65	HA	MOWING
MIN DEDDING MATERIAL, UTILITIES 1.40						
CLASS	182	MTN				
Description 1.5 MTM	102	WITT				
Part	15	MTN	PAVEMENT REPAIR FOR UTILITY			SPECIALIZED SEEDING UNDER
1.	500					
Second S	308	IVI		225	M	IMPERVIOUS DIKE
			(400MM, 50, 2.41MPA)			
1	18	M				
1	529	М				
1				0	LA	
				164	MTN	GENERIC EROSION CONTROL ITEM
Month of DWATER PIPE, PC ***MPA	14	M				BOULDERS
2-4 IMFA	241	м				
10 10 10 10 10 10 10 10	241			89	EA	
4.07	10	M	20MM COPPER WATER PIPE, TYPE K	10	EA	
1	4,078	KG		10		
1.58MPA WP	2	г.		34	EA	BACKPLATE
2	3	EA				MESSENGER CABLE (6.35MM)
1	2	EA				
E. RELOCATE EXISTING WATER METER						
10 M	-			190	IVI	
COMM.S. SILO REMOVE ABANDONED 300MM PIPE. ************************************						
	100	IVI		25	M	
PIPL_***********************************	372	M				
137 N FILL OR REMOVE ABANDONED 400MM PIPE, ************************************			*	1 551	М	
PIPE ***********************************	127			1,551		
DIWATER CONDUTY COND	137	M		180	M	TRENCH MULTI-DUCT, 31.75MM (**
No. Section			(DI WATER)			
CONDUTY COND	209	M		892	М	
1				0,2	.,,	
### MTHICK, BY OPEN CUT (600MM, 6.25) Section Secti	97	М				(4)
SE				1,618	M	
Second S						
105 EA JUNCTION BOX (OVER-SIZED)	58	M		47	EA	
BREAKDOWN & CAP EXISTING MANHOLE 10 EA WOOD POLE				105	EA	JUNCTION BOX (OVER-SIZED)
MANHOLE	1	EA	GENERIC UTILITY ITEM	11	EA	,
Facility				10	г.	
REMOVE AND STOCKPILE EXISTING 1	1	EΛ				
FIRE HYDRANT	1	EA				
REMOVE EXISTING BLOWOFF			FIRE HYDRANT			
13,100 M TEMPORARY SILT FENCE 8,910 M LEAD-IN CABLE 1,325 MTN STONE FOR EROSION CONTROL,	4	EA				TUBING
1,325 MTN STONE FOR EROSION CONTROL, CLASS A 2,972 M COMMUNICATIONS CABLE (**FIBER) (12)	13 100	М				
STONE FOR EROSION CONTROL, CLASS A 2,972 M COMMUNICATIONS CABLE (**FIBER) (12)						
35,500 MTN STONE FOR EROSION CONTROL, CLASS B 18,800 MTN SEDIMENT CONTROL STONE 120 HA TEMPORARY MULCHING 6,500 KG SEED FOR TEMPORARY SEEDING 52.25 MTN FERTILIZER FOR TEMPORARY SEED ING 1,100 M TEMPORARY SLOPE DRAINS 8 EA INLET PROTECTION AT TEMPORARY SEED SLOPE DRAINS 155,500 M3 SILT EXCAVATION 12,000 M2 SYNTHETIC ROVING 30,000 M2 MATTING FOR EROSION CONTROL 1,150 M 6.4MM HARDWARE CLOTH 1,150 M 6.4MM HARDWARE CLOTH 100 M ***MM TEMPORARY PIPE (450MM) 3 EA ***X***X****MM PERFORATED CS PIPE TEE RISER, 1.63MM THICK 18,800 MTN SEDIMENT SOIL REINFORCENTER 12,614 M COMMUNICATIONS CABLE (**FIBER) 12,615 M CABINET BOLD SABLE (**FIBER) 13,614 M COMMUNICATIONS CABLE (**FIBER) 14,615 M CABINET BOLD SABLE (**FIBER) 15,510 M CABINET BOLD SABLE (**FIBER) 16,510 M COMMUNICATIONS 16,610 M COMMUNICATIONS 17,62 M CTABLE MATICAL M	1,525					
18,800 MTN SEDIMENT CONTROL STONE 120 HA TEMPORARY MULCHING 121 EA AERIAL SPLICE ENCLOSURE 122 EA INTERCONNECT CENTER 123 EA FIBER-OPTIC TRANSCEIVER 130 MT FERTILIZER FOR TEMPORARY SEED-ING 131 EA FIBER-OPTIC TRANSCEIVER 14,100 M TEMPORARY SLOPE DRAINS 155,500 M3 SILT EXCAVATION 155,500 M3 SILT EXCAVATION 160 M2 SYNTHETIC ROVING 170 EA METAL STRAIN SIGNAL POLE 170 MATTING FOR EROSION CONTROL 170 M2 MATTING FOR EROSION CONTROL 170 M3 M4 MATTING FOR EROSION CONTROL 170 M6 M5 M6 MM HARDWARE CLOTH 180 M6 M6 MM HARDWARE CLOTH 180 M7 M6 MM HARDWARE CLOTH 180 M8 M6 MM HARDWARE PIPE 180 M6 M6 MM HARDWARE PIPE 180 M6 M6 MM HARDWARE PIPE 180 M6 M7 M6 MM HEMPORARY PIPE 180 M7 M6 M7 M7 MM PERFORATED CS 180 M7 M8 PIPE TEE RISER, 1.63MM THICK	35,500	MTN		2,972	IVI	
120	40.000			12,614	M	` '
6,500 KG SEED FOR TEMPORARY SEEDING 12 EA AERIAL SPILCE ENCLOSURE 52.25 MTN FERTILIZER FOR TEMPORARY SEED-						(72)
S2.25 MTN						
ING						
1,100 M TEMPORARY SLOPE DRAINS 3 EA FURNISH FIBER-OPTIC TRANSCEIV-ER						
SEA INLET PROTECTION AT TEMPORARY SLOPE DRAINS ER	1,100	M	TEMPORARY SLOPE DRAINS			
155,500 M3 SILT EXCAVATION 37 EA METAL STRAIN SIGNAL POLE	85	EA		3	Lit	
12,000 M2 SYNTHETIC ROVING 37 EA METAL SIGNAL POLE FOUNDATION 30,000 M2 MATTING FOR EROSION CONTROL E SIGNAL POLE FOUNDATION 555 M2 PERMANENT SOIL REINFORCEMENT 13 EA METAL STRAIN POLE DESIGN 1,150 M 6.4MM HARDWARE CLOTH 8 EA SIGN FOR SIGNALS 100 M ***MM TEMPORARY PIPE 4 EA CABINET BASE ADAPTER 1 450MM EA CONTROLLER WITH CABINET (TYPE ITOE, BASE MOUNTED) 2 EA ***X**X***MM PERFORATED CS PIPE TEE RISER, 1.63MM THICK E CONTROLLER WITH CABINET (TYPE ITOE, BASE MOUNTED) 3 EA EA EA EA EA EA EA	155 500	M2		37	EA	METAL STRAIN SIGNAL POLE
30,000 M2						
Section Figure				3	EA	
MAT				12	EΛ	
1,150 M						
100 M ***MM TEMPORARY PIPE (450MM) 4 EA CABINET BASE ADAPTER 3 EA ***X***X***MM PERFORATED CS 3 EA CONTROLLER WITH CABINET (TYPE 170E, BASE MOUNTED)						
3 EA ***X****MM PERFORATED CS PIPE TEE RISER, 1.63MM THICK 3 EA CONTROLLER WITH CABINET (TYPE 170E, BASE MOUNTED)	100	M				
PIPE TEE RISER, 1.63MM THICK 170E, BASE MOUNTED)	3	EΔ		3	EA	CONTROLLER WITH CABINET (TYPE
(800MM X 800MM X 800MM) 49 EA DETECTOR CHANNEL (TYPE 170)	3	-41	PIPE TEE RISER, 1.63MM THICK		_	
			(800MM X 800MM X 800MM)	49	EA	DETECTOR CHANNEL (TYPE 170)

4	EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)	1	EA	GENERIC SIGNAL ITEM EXTERNAL LOOP EMULATOR PROCESSING UNIT
40	EA EA	DETECTOR CHANNEL (TYPE 2070L) CONTROLLER WITH CABINET (NEMA TS 2 TYPE 2 CONTROLLER TYPE			
		TS-2, TYPE 2 CONTROLLER, TYPE 1 CABINET, BASE MOUNTED)			*** END SCHEDULE HA *
22	EA	DETECTOR CHANNEL (NEMA TS-2)			CULVERT ITEMS
1	EA	CENTRAL COMPUTER			
2	EA	NOTEBOOK COMPUTER	Lump Sum	LS	CULVERT EXCAVATION, STA *****
1	EA EA	PRINTER GENERIC SIGNAL ITEM			(369+15.500 -LREV-)
6	EA	CCTV ASSEMBLY	Lump Sum	LS	CULVERT EXCAVATION, STA ****** (389+42.200 -LREV-)
6	EA	GENERIC SIGNAL ITEM	Lump Sum	LS	CULVERT EXCAVATION, STA *****
		CCTV CAMERA WOOD POLE (15.2M)			(442+07.500 -L-)
5	EA	GENERIC SIGNAL ITEM FIBER OPTIC DATA TRANCEIVER	Lump Sum	LS	CULVERT EXCAVATION, STA ****** (457+00.00 -L-)
7	EA	(SINGLE FIBER) GENERIC SIGNAL ITEM	1,026.5	MTN	
,	EA	FIBER OPTIC DIGITAL VIDEO	1,602,6	M2	IAL, BOX CULVERT
		RECEIVERS/DATA TRANSMITTERS	1,693.6 128,392	M3 KG	CLASS A CONCRETE (CULVERT) REINFORCING STEEL (CULVERT)
7	EA	GENERIC SIGNAL ITEM	126,392	KU	REINFORCING STEEL (COLVERT)
		FIBER OPTIC DIGITAL VIDEO TRANSMITTERS/DATA RECEIVERS			
1	EA	GENERIC SIGNAL ITEM			CEDITORINE TORMS
	Lat	FIBER OPTIC SPLICE CABINET (POLE MOUNTED)			STRUCTURE ITEMS
1	EA	GENERIC SIGNAL ITEM	Lump Sum	LS	CONSTRUCTION, MAINTENANCE, &
		FURNISH FIBER OPTIC DATA	Lump Sum	LS	REMOVAL OF TEMP ACCESS AT STA
		TRANSCEIVER (SINGLE FIBER)			******
1	EA	GENERIC SIGNAL ITEM FURNISH FIBER OPTIC DIGITAL			(396+37.050 -LREV-RT)
		VIDEO RECEIVERS/DATA TRANS-	Lump Sum	LS	CONSTRUCTION, MAINTENANCE, &
		MITTERS			REMOVAL OF TEMP ACCESS AT STA
1	EA	GENERIC SIGNAL ITEM			(445+88.000 -L-LT)
		FURNISH FIBER OPTIC DIGITAL	Lump Sum	LS	CONSTRUCTION, MAINTENANCE, &
		VIDEO TRANSMITTERS/DATA RECEIVERS			REMOVAL OF TEMP ACCESS AT STA
2	EA	GENERIC SIGNAL ITEM			**************************************
		MAST ARM FOR VIDEO SYSTEM	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
1	EA	GENERIC SIGNAL ITEM			** AT STATION ********
	Б.	RELOCATE CCTV ASSEMBLY			(1,363+53.676 -LREV-)
1	EA	GENERIC SIGNAL ITEM SITE SURVEY	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***********
Lump Sum	LS	GENERIC SIGNAL ITEM			(1,408+42.504 -LREV-)
		CCTV SYSTEM INTEGRATION	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
393	M	GENERIC SIGNAL ITEM	•		** AT STATION ********
4.000		DROP CABLE (24 FIBER)			(1,437+50.704 -L-)
1,889	M	GENERIC SIGNAL ITEM DROP CABLE (6 FIBER)	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***********
11,119	M	GENERIC SIGNAL ITEM			(1,465+66.727 -L-)
		UNDERGROUND MULTIDUCT	223.6	M	****MM DIA DRILLED PIERS IN
		(31.75MM) (4 CONDUIT)			SOIL
			115.1	м	(1220MM) ****MM DIA DRILLED PIERS IN
			113.1	M	SOIL
		****** BEGIN SCHEDULE AA ****** ******* (2 ALTERNATES) ******			(1372MM)
124,489	M2	LIME TREATED SOIL (SLURRY	144	M	****MM DIA DRILLED PIERS NOT
		METHOD)			IN SOIL (1220MM)
1,375	MTN	LIME FOR LIME TREATED SOIL	70.5	M	****MM DIA DRILLED PIERS NOT
373,485	M2	***MM SOIL CEMENT BASE	70.5		IN SOIL
11.005	MTNI	(180MM) PORTLAND CEMENT FOR SOIL CE-			(1372MM)
11,223	WIIN	MENT BASE	78.6	M	PERMANENT STEEL CASING FOR
5,050	MTN	AGGREGATE FOR SOIL CEMENT BASE			****MM DRILLED PIER (1220MM)
338,650	L	ASPHALT CURING SEAL	67.5	M	PERMANENT STEEL CASING FOR
20	MTN	BLOTTING SAND			****MM DRILLED PIER
		*** OR ***			(1372MM)
241,400	MTN	GENERIC PAVING ITEM	8	EA	SID INSPECTION
		AGGREGATE BASE COURSE FOR STABILIZATION	8 14	EA EA	SPT TESTING CROSSHOLE SONIC LOGGING
		STABLEATION	2,394.8	M	CSL TUBES
		*** END SCHEDULE AA ***	20,550.5	M2	REINFORCED CONCRETE DECK SLAB
		******* BEGIN SCHEDULE HA ******	18,285.2	M2	GROOVING BRIDGE FLOORS
		******* (2 ALTERNATES) ******	2,006.8	M3	CLASS A CONCRETE (BRIDGE)
4	EA	GENERIC SIGNAL ITEM	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
		CAMERA WITH INTERNAL LOOP EMULATOR PROCESSING UNIT			**************************************
		*** OR ***	I name Co	10	(353+71.453 -L-) RRIDGE APPROACH SLARS STATION
4	EA	GENERIC SIGNAL ITEM	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
·		CAMERA WITHOUT INTERNAL LOOP			(353+72.854 -L-)
		EMULATOR PROCESSING UNIT	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION

					(363+53.676 -LREV-)

Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(396+37.050 -LREV-LT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(396+37.050 -LREV-RT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(408+42.504 -LREV-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(437+50.704 -L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(445+88.000 -L-LT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(445+88.000 -L-RT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(465+66.727 -L-)
232,663	KG	REINFORCING STEEL (BRIDGE)
37,193	KG	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)
2,296	M	MODIFIED 1600MM PRESTRESSED CONC GIRDERS
1,571.52	M	MODIFIED 1829MM PRESTRESSED CONC GIRDERS
2,469,900	LS	APPROX KG STRUCTURAL STEEL
1,934	M	HP310X79 STEEL PILES
700	M	HP360X108 STEEL PILES
36	EA	STEEL PILE POINTS
143.282	M	THREE BAR METAL RAIL
2,046.133	M	CONCRETE BARRIER RAIL
2,067	M2	100MM SLOPE PROTECTION
4,222	MTN	PLAIN RIP RAP CLASS II (600MM
		THICK)
4,303	M2	FILTER FABRIC FOR DRAINAGE
Lump Sum	LS	POT BEARINGS
Lump Sum	LS	ELASTOMERIC BEARINGS
Lump Sum	LS	EVAZOTE JOINT SEALS
Lump Sum	LS	EXPANSION JOINT SEALS
Lump Sum	LS	MODULAR EXPANSION JOINT SEALS
Lump Sum	LS	ELECTRICAL CONDUIT SYSTEM, STA **********
		(353+71.453 -L-)
Lump Sum	LS	ELECTRICAL CONDUIT SYSTEM, STA **********
		(353+72.854 -L-)
Lump Sum	LS	ELECTRICAL CONDUIT SYSTEM, STA **********
		(396+37.050 -LREV-RT)
Lump Sum	LS	ELECTRICAL CONDUIT SYSTEM, STA **********
		(445+88 -L-RT)
38	M	GENERIC STRUCTURE ITEM PILE EXCAVATION IN SOIL
19	М	GENERIC STRUCTURE ITEM
19	141	PILE EXCAVATION NOT IN SOIL

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L030722 004

STATE FUNDED PROPOSAL, CONTRACTOR LICENSE REQUIRED TO BID

CONTRACT ID: C200739 34398.3.10 DIV OFFICE ABERDEEN LENGTH = 6.925 KM

COUNTY: MONTGOMERY, RICHMOND

WIDENING, GRADING, DRAINAGE, PAVING & STRUCTURES.

MBE GOAL 10.0% WBE 5.0% COMPLETION DATE: DEC 31 2006

US-220 BYPASS FROM NORTH OF NC-73 TO SOUTH OF SR-1524.

		ROADWAY ITEMS	8	EA	***MM BIT COAT CS PIPE ELBOWS, TYPE B ****MM THICK (300MM, 1.63MM)
Lump Sum	LS	MOBILIZATION	10	EA	400MM BIT COAT CS PIPE ELBOWS,
Lump Sum	LS	CONSTRUCTION SURVEYING	3	EA	TYPE B 1.63MM THICK 600MM BIT COAT CS PIPE ELBOWS,
Lump Sum Lump Sum	LS LS	FIELD OFFICE CLEARING & GRUBBING HEC-	1	EA	TYPE B 1.63MM THICK 800MM BIT COAT CS PIPE ELBOWS,
1.6	HA	TARE(S) SUPPLEMENTARY CLEARING & GRUB-	150	М	TYPE B 2.01MM THICK PIPE REMOVAL
_		BING	250	M2	150MM SLOPE PROTECTION
1 121 100	EA M2	SEALING ABANDONED WELLS	Lump Sum	LS	FINE GRADING
1,131,100 Lump Sum	M3 LS	UNCLASSIFIED EXCAVATION REINFORCED BRIDGE APPROACH	120,100	MTN	AGGREGATE BASE COURSE
Lump Sum	Lo	FILL, STATION ********		MTN	INCIDENTAL STONE BASE
		(12+48.918 -Y2-)	46,000	M3	SHOULDER BORROW
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION ***********	45,000 1,200	L M2	PRIME COAT
		(14+49.938 -Y4-)	1,800	MTN	INCIDENTAL MILLING ASPHALT CONC BASE COURSE, TYPE
Lump Sum	LS	REINFORCED BRIDGE APPROACH	1,000		B25.0B
		FILL, STATION ************************************	27,600	MTN	ASPHALT CONC BASE COURSE, TYPE
Lump Cum	LS	(16+65.497 -Y-)	* ***		B25.0C
Lump Sum	L3	REINFORCED BRIDGE APPROACH FILL, STATION ************************************			ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
Lump Sum	LS	REINFORCED BRIDGE APPROACH	27,100	MTN	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
		FILL, STATION ********	10.700	MTN	ASPHALT CONC SURFACE COURSE,
		(190+90.632 -L- LT)	10,700		TYPE S9.5B
2,800	M3 MTN	UNDERCUT EXCAVATION CLASS IV SUBGRADE STABILIZA-	27,000	MTN	ASPHALT CONC SURFACE COURSE,
600	IVI I IN	TION	2.515	MTNI	TYPE S9.5C
28,800	M3	DRAINAGE DITCH EXCAVATION	3,313	MTN	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
430	M	BERM DITCH CONSTRUCTION	1,755	MTN	ASPHALT BINDER FOR PLANT MIX,
12,400	M2	REMOVAL OF EXISTING ASPHALT			GRADE PG 70-22
2,600	M2	PAVEMENT BREAKING OF EXISTING ASPHALT	570	MTN	ASPHALT PLANT MIX PAVEMENT REPAIR
CO	IID	PAVEMENT	28,000	M	MILLED RUMBLE STRIPS
1,000	HR M3	PROOF ROLLING SELECT GRANULAR MATERIAL	139	EA	RIGHT OF WAY MARKERS
1,600	M2	FABRIC FOR SOIL STABILIZATION	390 290	M3 M3	SUBDRAIN EXCAVATION SUBDRAIN FINE AGGREGATE
1,300	M3	GENERIC GRADING ITEM	700	M	150MM PERFORATED SUBDRAIN PIPE
		SELECT GRANULAR MATERIAL FOR	70	EA	150MM SUBDRAIN PIPE WYES,
# 400		TEMPORARY FABRIC WALL			TEES, & ELBOWS
5,400	M2	GENERIC GRADING ITEM FABRIC FOR TEMPORARY FABRIC	5	EA	CONCRETE PAD FOR SUBDRAIN PIPE
		WALL	10		OUTLET
1,545	MTN		10 1,800	M M	150MM OUTLET PIPE (SUBDRAINS) SHOULDER DRAIN
		RIAL, MINOR STRS	1,800	M	100MM SHOULDER DRAIN PIPE
235.2	M	375MM SIDE DRAIN PIPE	120	M	100MM OUTLET PIPE (SHOULDER
12 922.8	M M	450MM SIDE DRAIN PIPE 375MM RC PIPE CULVERTS, CLASS			DRAINS)
922.8	IVI	III	15	EA	CONCRETE PAD FOR SHOULDER
980.4	M	450MM RC PIPE CULVERTS, CLASS	10.4	М3	DRAIN PIPE OUTLET ENDWALLS
		III	2.71	M3	PIPE COLLARS
1,273.2	M	600MM RC PIPE CULVERTS, CLASS III	77	EA	MASONRY DRAINAGE STRUCTURES
552	M	750MM RC PIPE CULVERTS, CLASS	15.36	M	MASONRY DRAINAGE STRUCTURES
		III	7	EA	FRAME WITH GRATE, STD 840.22
592.8	M	900MM RC PIPE CULVERTS, CLASS III	7	EA	FRAME WITH TWO GRATES, STD 840.****
102	M	****MM RC PIPE CULVERTS, CLASS IV	56	EA	(840.20) FRAME WITH TWO GRATES, STD
		(900MM)			840.22
31.2	M	450MM CS PIPE CULVERTS, 1.63MM THICK	13	EA	FRAME WITH TWO GRATES, STD 840.29
32.4	M	300MM BIT COAT CS PIPE CUL-	1	EA	FRAME WITH COVER, STD 840.54
63.6	M	VERTS, TYPE B 1.63MM THICK 400MM BIT COAT CS PIPE CUL-	4	EA	***MM SLUICE GATE (900MM)
0.00	141	VERTS, TYPE B 1.63MM THICK	1,610	M	SHOULDER BERM GUTTER
33.6	M	600MM BIT COAT CS PIPE CUL-	3	EA	MODIFIED CONCRETE FLUME
		VERTS, TYPE B 1.63MM THICK	350	M	CONCRETE EXPRESSWAY GUTTER
21.6	M	800MM BIT COAT CS PIPE CUL-	80	M2	100MM CONCRETE PAVED DITCH
52.8	M	VERTS, TYPE B 2.01MM THICK 900MM BIT COAT CS PIPE CUL-	270	M2	125MM MONOLITHIC CONCRETE IS-
52.0	-/-	VERTS, TYPE B 2.01MM THICK			LANDS (SURFACE MOUNTED)

			60,688	M	PAINT PAVEMENT MARKING LINES (100MM)
610	M2	GENERIC PAVING ITEM	20	M	PAINT PAVEMENT MARKING LINES (600MM)
		REINFORCED CONC DRIVEWAY	8 1,000	EA M	PAINT PAVEMENT MARKING SYMBOL REMOVAL OF PAVEMENT MARKING
4,236.72 58.35	M M	STEEL BM GUARDRAIL STEEL BM GUARDRAIL, SHOP			LINES (100MM)
2	EA	CURVED STEEL BM GUARDRAIL TERMINAL	480	EA	PERMANENT RAISED PAVEMENT MARKERS
		SECTIONS	9	EA	2.1M U-CHANNEL POSTS
10	EA	ADDITIONAL GUARDRAIL POSTS	50	EA	FLEXIBLE DELINEATORS (CRYSTAL)
1	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1	20 24	EA EA	FLEXIBLE DELINEATORS (YELLOW) FLEXIBLE DELINEATORS (CRYSTAL
6	EA	GUARDRAIL ANCHOR UNITS, TYPE	24	LA	& RED)
16	EA	CAT-1 GUARDRAIL ANCHOR UNITS, TYPE	24	EA	FLEXIBLE DELINEATORS (YELLOW & RED)
27	EA	III GUARDRAIL ANCHOR UNITS, TYPE	9	EA MTN	OBJECT MARKERS (END OF ROAD) FOUNDATION CONDITIONING MATE-
		350	0.5		RIAL, UTILITIES CLASS ******* (I)
2	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350	65	MTN	BEDDING MATERIAL, UTILITIES
6,000	M	DOUBLE FACED CABLE GUIDERAIL			CLASS **************(I)
26	EA	CABLE GUIDERAIL ANCHOR UNITS	2	MTN	* /
16,800	M	WOVEN WIRE FENCE, 1200MM FAB- RIC			WORK
920	EA	100MM TIMBER FENCE POSTS, 2.30M LONG	6.5	M	150MM DI WATER PIPE, PC 2.41MPA
590	EA	125MM TIMBER FENCE POSTS,	125	M	200MM DI WATER PIPE, PC 2.41MPA
150	M	2.50M LONG ADDITIONAL BARBED WIRE	30	M	20MM COPPER WATER PIPE, TYPE K
		PLAIN RIP RAP, CLASS I	1,347	M	200MM PVC WATER PIPE, SDR 21,
3,000		PLAIN RIP RAP, CLASS B			1.38MPA WP
7,350	M2	FILTER FABRIC FOR DRAINAGE	1,131	KG	DUCTILE IRON WATER PIPE FIT- TINGS, 1.72MPA MIN WP
3	EA	PREFORMED SCOUR HOLES WITH	1	EA	20MM CORPORATION STOP
7	142	LEVEL SPREADER APRON	2	EA	150MM GATE VALVE & VALVE BOX,
7	M3	REINFORCED CONCRETE SIGN FOOT- INGS			1.38MPA WP
2	M3	PLAIN CONCRETE SIGN FOOTINGS	5	EA	(1.38MPA) 200MM GATE VALVE & VALVE BOX,
2,467	KG	SUPPORTS, BREAKAWAY STEEL BEAM	5	LA	****MPA WP
1,517	KG	SUPPORTS, SIMPLE STEEL BEAM			(1.38MPA)
499	M	SUPPORTS, 4.5KG STEEL	1	EA	*** X ***MM TAPPING SADDLE
10	EA	U-CHANNEL SUPPORTS, 3KG STEEL U-CHANNEL	2	EA	(200MM X 20MM) RELOCATE EXISTING FIRE HYDRANT
8	EA	SIGN ERECTION, TYPE D	1	EA	GENERIC UTILITY ITEM
46	EA	SIGN ERECTION, TYPE E			INSTALL WATER METER
10	EA	SIGN ERECTION, TYPE F	850	M	TEMPORARY SILT FENCE
13	EA	SIGN ERECTION, TYPE ***	350	MTN	STONE FOR EROSION CONTROL, CLASS A
		(GROUND MOUNTED) (A)	6,200	MTN	STONE FOR EROSION CONTROL,
10	EA	SIGN ERECTION, TYPE ***			CLASS B
		(GROUND MOUNTED)			SEDIMENT CONTROL STONE
10	EA	(B) SIGN ERECTION, MILEMARKERS		HA	TEMPORARY MULCHING
22	M2	WORK ZONE SIGNS (STATIONARY)		KG MTN	SEED FOR TEMPORARY SEEDING FERTILIZER FOR TEMPORARY SEED-
27	M2	WORK ZONE SIGNS (PORTABLE)	31.13	WITN	ING
10	M2	WORK ZONE SIGNS (BARRICADE	740	M	TEMPORARY SLOPE DRAINS
		MOUNTED)	72	EA	INLET PROTECTION AT TEMPORARY
125	EA EA	DRUMS CONES	107.500	М3	SLOPE DRAINS SILT EXCAVATION
60 20	M	BARRICADES (TYPE II)	107,500 4,350	M2	SYNTHETIC ROVING
40	M	BARRICADES (TYPE III)	2,175	M2	MATTING FOR EROSION CONTROL
480	HR	FLAGGER	700	M2	PERMANENT SOIL REINFORCEMENT
2	EA	WARNING LIGHTS (TYPE B)			MAT
2	EA	TEMPORARY CRASH CUSHIONS	85	M	6.4MM HARDWARE CLOTH
1	EA	TRUCK MOUNTED IMPACT ATTENUA- TOR (45 MPH)	2	EA	***X***X***MM PERFORATED CS PIPE TEE RISER, 1.63MM THICK
220	M	PORTABLE CONCRETE BARRIER			(450MM X 450MM X 450MM)
220		(DRAINAGE)	1	EA	***X ***X***MM PERFORATED CS
100	EA	TEMPORARY RAISED PAVEMENT			PIPE TEE RISER, 2.01MM THICK (800MM X 800MM X 800MM)
7 202		MARKERS THERMOPLASTIC PAVEMENT MARKING	2	EA	***X ***X***MM PERFORATED CS
7,302	M	LINES (100MM, 2.3MM)			PIPE TEE RISER, 2.01MM THICK (900MM X 900MM X 900MM)
6,462	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 3.1MM)		HA	SEEDING & MULCHING
28,000	M	THERMOPLASTIC PAVEMENT MARKING LINES (150MM, 2.3MM)		HA KG	MOWING SEED FOR REPAIR SEEDING
3,580	M	THERMOPLASTIC PAVEMENT MARKING		MTN KG	FERTILIZER FOR REPAIR SEEDING SEED FOR SUPPLEMENTAL SEEDING
100	М	LINES (150MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING			FERTILIZER TOPDRESSING
100	141	LINES (200MM, 2.3MM)	26		SPECIALIZED HAND MOWING
450	M	THERMOPLASTIC PAVEMENT MARKING	32		RESPONSE FOR EROSION CONTROL
40	3.4	LINES (300MM, 2.3MM)	7	HA	REFORESTATION
40	M	THERMOPLASTIC PAVEMENT MARKING LINES (600MM, 3.1MM)			
38	EA	THERMOPLASTIC PAVEMENT MARKING			

38 EA THERMOPLASTIC PAVEMENT MARKING SYMBOL (2.3MM)

0.5 HA GENERIC EROSION CONTROL ITEM SPECIALIZED SEEDING UNDER GUIDERAIL AND GUARDRAIL (CENTIPEDE)

STRUCTURE ITEMS

Lump Sum	LS	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMP ACCESS AT STA
		(190+89.000 -L-LT)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION **********
Lump Sum	LS	(1,190+89.000 -L-LT) FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	(1,190+89.000 -L-RT) FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***********
		(4,190+89.000 -L-RT)
6,577.2	M2	REINFORCED CONCRETE DECK SLAB
5,664.2	M2	GROOVING BRIDGE FLOORS
1,117.8	M3	CLASS A CONCRETE (BRIDGE)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(181+85.000 -L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(190+89.000 -L-LT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(190+89.000 -L-RT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(199+75.000 -L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(238+35.000 -L-)
103,074	KG	REINFORCING STEEL (BRIDGE)
11,964	KG	SPIRAL COLUMN REINFORCING
		STEEL (BRIDGE)
1,311.25	M	1372MM PRESTRESSED CONCRETE GIRDERS
368,300	LS	APPROX KG STRUCTURAL STEEL
5,454	M	HP310X79 STEEL PILES
Lump Sum	LS	GALVANIZING STEEL PILES AT STA *************
		(190+89.000 -L-LT)
Lump Sum	LS	GALVANIZING STEEL PILES AT STA
		(190+89.000 -L-RT)
966.754	M	CONCRETE BARRIER RAIL
1,049	M2	100MM SLOPE PROTECTION
4,245	MTN	PLAIN RIP RAP CLASS B
3,216	M2	FILTER FABRIC FOR DRAINAGE
Lump Sum	LS	POT BEARINGS
Lump Sum	LS	ELASTOMERIC BEARINGS
Lump Sum	LS	EVAZOTE JOINT SEALS
r		

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L030722 005

STATE FUNDED PROPOSAL, CONTRACTOR LICENSE REQUIRED TO BID

CONTRACT ID: C200279 34398.3.11 DIV OFFICE ABERDEEN LENGTH = 4.446 KM

COUNTY : **MONTGOMERY**

WIDENING, GRADING, DRAINAGE, PAVING & STRUCTURES.

MBE GOAL 10.0% WBE 5.0% COMPLETION DATE: DEC 31 2006

US-220 BYPASS FROM SOUTH OF SR-1524 TO EXISTING 4 LANES NORTH OF US-220 ALT.

		ROADWAY ITEMS	321.2	М	PIPE REMOVAL
			Lump Sum	LS	FINE GRADING
Lump Sum	LS	MOBILIZATION	250	KG	SEALING EXISTING PAVEMENT CRACKS
Lump Sum	LS	CONSTRUCTION SURVEYING	5,000	M2	LIME TREATED SOIL (QUICKLIME)
Lump Sum	LS	CLEARING & GRUBBING HEC-	50	MTN	LIME FOR LIME TREATED SOIL
•		TARE(S)	80,900	MTN	AGGREGATE BASE COURSE
2	HA	SUPPLEMENTARY CLEARING & GRUB-	500	MTN	INCIDENTAL STONE BASE
		BING	34,600	L	PRIME COAT
669,900	M3	UNCLASSIFIED EXCAVATION	880	MTN	ASPHALT CONC BASE COURSE, TYPE
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION ************************************	***	1 cm 1	B25.0B
		(15+00.000-Y1-)	21,260	MIN	ASPHALT CONC BASE COURSE, TYPE B25.0C
Lump Sum	LS	REINFORCED BRIDGE APPROACH	3,690	MTN	ASPHALT CONC INTERMEDIATE
		FILL, STATION ********	2,000		COURSE, TYPE I19.0B
		(15+00.900-Y2-)	14,025	MTN	ASPHALT CONC INTERMEDIATE
21,320	M3	UNDERCUT EXCAVATION			COURSE, TYPE I19.0C
600	MTN	CLASS IV SUBGRADE STABILIZA- TION	8,540	MTN	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
136,200	M3	BORROW EXCAVATION	18 110	MTN	ASPHALT CONC SURFACE COURSE,
2,250	M3	DRAINAGE DITCH EXCAVATION	10,110		TYPE S9.5C
860	M	BERM DITCH CONSTRUCTION	2,340	MTN	ASPHALT BINDER FOR PLANT MIX,
23,775	M2	REMOVAL OF EXISTING ASPHALT			GRADE PG 64-22
		PAVEMENT	1,178	MTN	ASPHALT BINDER FOR PLANT MIX,
4,475	M2	BREAKING OF EXISTING ASPHALT PAVEMENT	250	MTN	GRADE PG 70-22
28	HR	PROOF ROLLING	230	MIIN	ASPHALT PLANT MIX PAVEMENT REPAIR
1,000	M3	SELECT GRANULAR MATERIAL	17,850	M	MILLED RUMBLE STRIPS
1,600	M2	FABRIC FOR SOIL STABILIZATION	90	EA	RIGHT OF WAY MARKERS
1,320		FOUNDATION CONDITIONING MATE-	415	M3	SUBDRAIN EXCAVATION
		RIAL, MINOR STRS	210	M3	SUBDRAIN FINE AGGREGATE
22.8	M	375MM SIDE DRAIN PIPE	500	M	150MM PERFORATED SUBDRAIN PIPE
24	M	450MM SIDE DRAIN PIPE	50	EA	150MM SUBDRAIN PIPE WYES,
973.2	M	375MM RC PIPE CULVERTS, CLASS	4	Б.	TEES, & ELBOWS
750	M	III 450MM RC PIPE CULVERTS, CLASS	4	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET
730	IVI	III	8	M	150MM OUTLET PIPE (SUBDRAINS)
1,069.2	M	600MM RC PIPE CULVERTS, CLASS	1,500	M	SHOULDER DRAIN
		III	1,500	M	100MM SHOULDER DRAIN PIPE
338.4	M	750MM RC PIPE CULVERTS, CLASS	150	M	100MM OUTLET PIPE (SHOULDER
129.6	M	III			DRAINS)
129.0	IVI	1050MM RC PIPE CULVERTS, CLASS III	6	EA	CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET
96	M	1350MM RC PIPE CULVERTS, CLASS	3.4	M3	ENDWALLS
		III	12.4	M3	REINFORCED ENDWALLS
210	M	****MM RC PIPE CULVERTS, CLASS	2	M3	PIPE COLLARS
		IV (1500MM)	1	M3	PIPE PLUGS
79.2	M	****MM RC PIPE CULVERTS, CLASS	97	EA	MASONRY DRAINAGE STRUCTURES
		IV	2.07	M	MASONRY DRAINAGE STRUCTURES
		(450MM)	2	EA	FRAME WITH GRATE, STD 840.22
114	M	400MM CS PIPE CULVERTS, 1.63MM THICK	19	EA	FRAME WITH TWO GRATES, STD 840.****
20.4	M	450MM CS PIPE CULVERTS, 1.63MM			(840.20)
20.4	.,,	THICK	3	EA	FRAME WITH TWO GRATES, STD
14.4	M	***MM BIT COAT CS PIPE CUL-			840.16
		VERTS, TYPE B ****MM THICK	67	EA	FRAME WITH TWO GRATES, STD
222 0	M	(150MM, 1.63MM) 400MM BIT COAT CS PIPE CUL-	5	EA	840.22
233.8	IVI	VERTS, TYPE B 1.63MM THICK	1,275	M	FRAME WITH COVER, STD 840.54 SHOULDER BERM GUTTER
70.8	M	450MM BIT COAT CS PIPE CUL-	95	M2	100MM CONCRETE PAVED DITCH
		VERTS, TYPE B 1.63MM THICK	685	M2	125MM MONOLITHIC CONCRETE IS-
48	M	600MM BIT COAT CS PIPE CUL-			LANDS (KEYED IN)
27.6	M	VERTS, TYPE B 1.63MM THICK	2	EA	CONVERT EXISTING DROP INLET TO
27.6	M	800MM BIT COAT CS PIPE CUL- VERTS, TYPE B 2.01MM THICK			JUNCTION BOX
22	EA	400MM BIT COAT CS PIPE ELBOWS,	1	EA	CONVERT EXISTING JUNCTION BOX TO DROP INLET
		TYPE B 1.63MM THICK	3,173.73	M	STEEL BM GUARDRAIL
4	EA	450MM BIT COAT CS PIPE ELBOWS,	2	EA	STEEL BM GUARDRAIL TERMINAL
_	E.	TYPE B 1.63MM THICK			SECTIONS
6	EA	600MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK	10	EA	ADDITIONAL GUARDRAIL POSTS
2	EA	800MM BIT COAT CS PIPE ELBOWS,	6	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1
		TYPE B 2.01MM THICK			C111 1

			500	M	REMOVAL OF PAVEMENT MARKING LINES (100MM)
4	EA	GUARDRAIL ANCHOR UNITS, TYPE	624	EA	PERMANENT RAISED PAVEMENT MARKERS
17	EA	III GUARDRAIL ANCHOR UNITS, TYPE	12 100	EA EA	2.1M U-CHANNEL POSTS FLEXIBLE DELINEATORS (CRYSTAL)
17	LA	350	40	EA	FLEXIBLE DELINEATORS (YELLOW)
156.21	M M	REMOVE EXISTING GUARDRAIL	50	EA	FLEXIBLE DELINEATORS (CRYSTAL & RED)
11.43	EA	TEMPORARY STEEL BM GUARDRAIL TEMPORARY STEEL BM GUARDRAIL,	50	EA	FLEXIBLE DELINEATORS (YELLOW &
4.504.6	м	TERMINAL SECTIONS	12	EA	RED) OBJECT MARKERS (END OF ROAD)
4,304.6	M EA	CABLE GUIDERAIL CABLE GUIDERAIL ANCHOR UNITS		MTN	FOUNDATION CONDITIONING MATE-
7,725	M	WOVEN WIRE FENCE, 1200MM FAB-			RIAL, UTILITIES CLASS ******* (I)
1,655	EA	RIC 100MM TIMBER FENCE POSTS, 2.30M LONG	10	MTN	BEDDING MATERIAL, UTILITIES CLASS *********
295	EA	125MM TIMBER FENCE POSTS,	187	M	(1) 300MM PVC WATER PIPE, SDR 21,
300	M	2.50M LONG ADDITIONAL BARBED WIRE	200	***	1.38MPA WP
		PLAIN RIP RAP, CLASS I	390	KG	DUCTILE IRON WATER PIPE FIT- TINGS, 1.72MPA MIN WP
770 3,150	MTN M2	PLAIN RIP RAP, CLASS B FILTER FABRIC FOR DRAINAGE	1	EA	***MM BLOW OFF ASSEMBLY
5,150	EA	PREFORMED SCOUR HOLES WITH	82	М	(50MM) ***MM STEEL ENCASEMENT PIPE,
		LEVEL SPREADER APRON	02	141	****MM THICK, BY OPEN CUT
35	MTN	GENERIC EROSION CONTROL ITEM BOULDERS	2,200	M	(300MM, 5.00MM) TEMPORARY SILT FENCE
12	M3	REINFORCED CONCRETE SIGN FOOT-			STONE FOR EROSION CONTROL,
1	М3	INGS PLAIN CONCRETE SIGN FOOTINGS	0.000		CLASS A
3,959	KG	SUPPORTS, BREAKAWAY STEEL BEAM	8,800	MTN	STONE FOR EROSION CONTROL, CLASS B
3,174	KG	SUPPORTS, SIMPLE STEEL BEAM	3,900	MTN	SEDIMENT CONTROL STONE
600	M	SUPPORTS, 4.5KG STEEL U-CHANNEL		HA	TEMPORARY MULCHING
8	EA	SUPPORTS, 3KG STEEL U-CHANNEL	2,350	KG MTN	SEED FOR TEMPORARY SEEDING FERTILIZER FOR TEMPORARY SEED-
12	EA	SIGN ERECTION, TYPE D	17		ING
55	EA	SIGN ERECTION, TYPE E	800	M	TEMPORARY SLOPE DRAINS
24 10	EA EA	SIGN ERECTION, TYPE F SIGN ERECTION, TYPE ***	58	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
		(GROUND MOUNTED)	46,150	M3	SILT EXCAVATION
5	EA	(A) SIGN ERECTION, TYPE ***	4,400 2,200	M2 M2	SYNTHETIC ROVING MATTING FOR EROSION CONTROL
		(GROUND MOUNTED)	580	M2	PERMANENT SOIL REINFORCEMENT
8	EA	(B) SIGN ERECTION, MILEMARKERS	300	M	MAT 6.4MM HARDWARE CLOTH
27	EA	DISPOSAL OF SIGN SYSTEM, U-	150	M3	STILLING BASINS
58	M2	CHANNEL WORK ZONE SIGNS (STATIONARY)	56	HA	SEEDING & MULCHING
40	M2	WORK ZONE SIGNS (PORTABLE)	32.5	HA	MOWING
17	M2	WORK ZONE SIGNS (BARRICADE	700 2.25	KG MTN	SEED FOR REPAIR SEEDING FERTILIZER FOR REPAIR SEEDING
2	EA	MOUNTED) FLASHING ARROW PANELS, TYPE C	1,575		SEED FOR SUPPLEMENTAL SEEDING
2	EA	CHANGEABLE MESSAGE SIGNS			FERTILIZER TOPDRESSING
3	EA	WARNING FLAG SETS	0.07	HA	SPECIALIZED SEEDING UNDER GUIDERAIL & GUARDRAIL (CENTI-
120 50	EA EA	DRUMS CONES			PEDE)
80	M	BARRICADES (TYPE III)	20	M HR	IMPERVIOUS DIKE SPECIALIZED HAND MOWING
2,160	HR	FLAGGER	24	EA	RESPONSE FOR EROSION CONTROL
7 2	EA EA	WARNING LIGHTS (TYPE B) TRUCK MOUNTED IMPACT ATTENUA-	125	M3	CULVERT DIVERSION CHANNEL
-		TOR (60 MPH)	4 0.25	HA HA	REFORESTATION STREAMBANK REFORESTATION
162	EA	TEMPORARY RAISED PAVEMENT MARKERS	61	EA	GENERIC EROSION CONTROL ITEM
12,540	M	THERMOPLASTIC PAVEMENT MARKING	1 200	140	ROOTWADS
11 110		LINES (100MM, 2.3MM)	1,300	M2	GENERIC EROSION CONTROL ITEM COIR FIBER MAT
11,110	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 3.1MM)	120	M	SIGNAL CABLE
17,600	M	THERMOPLASTIC PAVEMENT MARKING	3	EA	VEHICLE SIGNAL HEAD (300MM, 3 SECTION)
2,400	M	LINES (150MM, 2.3MM) THERMOPLASTIC PAVEMENT MARKING	3	EA	VEHICLE SIGNAL HEAD (300MM, 5
		LINES (150MM, 3.1MM)	122	M	SECTION) MESSENGER CABLE (9.52MM)
540	M	THERMOPLASTIC PAVEMENT MARKING LINES (200MM, 2.3MM)	55	M	TRENCHING (UNPAVED)
1,000	M	THERMOPLASTIC PAVEMENT MARKING	3	EA	JUNCTION BOX (STANDARD SIZE)
16	M	LINES (300MM, 2.3MM) THERMOPLASTIC PAVEMENT MARKING	4	EA EA	WOOD POLE GUY ASSEMBLY
10	171	LINES (600MM, 3.1MM)	1	EA	25MM RISER WITH WEATHERHEAD
54	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (2.3MM)	4	EA	50MM RISER WITH WEATHERHEAD
46,130	M	PAINT PAVEMENT MARKING LINES	188 268	M M	INDUCTIVE LOOP SAWCUT LEAD-IN CABLE
		(100MM)	268	EA	CONTROLLER WITH CABINET (TYPE
160	M	PAINT PAVEMENT MARKING LINES (200MM)		E,	2070L, POLE MOUNTED)
68	M	PAINT PAVEMENT MARKING LINES	4	EA	DETECTOR CHANNEL (TYPE 2070L)
40	EA	(600MM) PAINT PAVEMENT MARKING SYMBOL			

40 EA PAINT PAVEMENT MARKING SYMBOL

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CULVERT ITEMS

Lump Sum LS CULVERT EXCAVATION, STA ****** (255+22.00 -L-) 147 MTN FOUNDATION CONDITIONING MATER-

IAL, BOX CULVERT

233.6 M3 CLASS A CONCRETE (CULVERT) 15,125 KG REINFORCING STEEL (CULVERT)

STRUCTURE ITEMS

Lump Sum LS FOUNDATION EXCAVATION FOR BENT ** AT STATION ***

(1,245+73.259 -L-)

Lump Sum LS FOUNDATION EXCAVATION FOR BENT

** AT STATION ********

(1,276+55.853 -L-)

2,510.6 M2 REINFORCED CONCRETE DECK SLAB

2,053.4 M2 GROOVING BRIDGE FLOORS

334.1 M3 CLASS A CONCRETE (BRIDGE)

Lump Sum LS BRIDGE APPROACH SLABS, STATION

(245+73.259 -L-)

Lump Sum LS BRIDGE APPROACH SLABS, STATION

(276+55.853 -L-)

36,372 KG REINFORCING STEEL (BRIDGE)

1,586 KG SPIRAL COLUMN REINFORCING STEEL (BRIDGE)

379,500 LS APPROX KG STRUCTURAL

STEEL

2,990 M HP310X79 STEEL PILES

297.912 M CONCRETE BARRIER RAIL

932 M2 100MM SLOPE PROTECTION

Lump Sum LS POT BEARINGS Lump Sum LS EVAZOTE JOINT SEALS

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L030722 006

STATE FUNDED PROPOSAL, CONTRACTOR LICENSE REQUIRED TO BID

CONTRACT ID: C200874 34398.3.10 DIV OFFICE ABERDEEN LENGTH = 11.371 KM

COUNTY: MONTGOMERY, RICHMOND

WIDENING, GRADING, DRAINAGE, PAVING & STRUCTURES.

MBE GOAL 10.0% WBE 5.0% COMPLETION DATE: DEC 31 2006

US-220 BYPASS FROM NORTH OF NC-73 TO EXISTING 4 LANES NORTH OF US-220 ALTERNATE.

		ROADWAY ITEMS	102	M	****MM RC PIPE CULVERTS, CLASS IV
Lumm Cum	1.0	MODILIZATION	114	M	(900MM) 400MM CS PIPE CULVERTS, 1.63MM
Lump Sum Lump Sum	LS LS	MOBILIZATION CONSTRUCTION SURVEYING			THICK
Lump Sum	LS	FIELD OFFICE	51.6	M	450MM CS PIPE CULVERTS, 1.63MM THICK
Lump Sum	LS HA	CLEARING & GRUBBING HEC- TARE(S) SUPPLEMENTARY CLEARING & GRUB-	14.4	M	***MM BIT COAT CS PIPE CUL- VERTS, TYPE B ****MM THICK
		BING	32.4	M	(150MM, 1.63MM) 300MM BIT COAT CS PIPE CUL-
7	EA	SEALING ABANDONED WELLS			VERTS, TYPE B 1.63MM THICK
1,801,000	M3 LS	UNCLASSIFIED EXCAVATION REINFORCED BRIDGE APPROACH	297.4	M	400MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	FILL, STATION ************************************	70.8	M	450MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION ************************************	81.6	M	600MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	(14+49.938 -Y4-) REINFORCED BRIDGE APPROACH	49.2	M	800MM BIT COAT CS PIPE CUL-
Zamp Jam	25	FILL, STATION ************************************	52.8	M	VERTS, TYPE B 2.01MM THICK 900MM BIT COAT CS PIPE CUL-
Lump Sum	LS	REINFORCED BRIDGE APPROACH	o	EA	VERTS, TYPE B 2.01MM THICK
1		FILL, STATION ************************************	8	EA	***MM BIT COAT CS PIPE ELBOWS, TYPE B ****MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	22	EA	(300MM, 1.63MM)
•		FILL, STATION ************************************	32	EA	400MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	4	EA	450MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
		FILL, STATION ************************************	9	EA	600MM BIT COAT CS PIPE ELBOWS,
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********	3	EA	TYPE B 1.63MM THICK 800MM BIT COAT CS PIPE ELBOWS,
		(190+90.632 -L- LT)			TYPE B 2.01MM THICK
24,120	M3	UNDERCUT EXCAVATION	471.2	M	PIPE REMOVAL
1,200	MTN	CLASS IV SUBGRADE STABILIZA-	250	M2 LS	150MM SLOPE PROTECTION FINE GRADING
21.050	M2	TION DRAINAGE DITCH EVCAVATION	Lump Sum 250	KG	SEALING EXISTING PAVEMENT
31,050 1,290	M3 M	DRAINAGE DITCH EXCAVATION BERM DITCH CONSTRUCTION	250		CRACKS
36,175	M2	REMOVAL OF EXISTING ASPHALT	5,000	M2	LIME TREATED SOIL (QUICKLIME) LIME FOR LIME TREATED SOIL
7,075	M2	PAVEMENT BREAKING OF EXISTING ASPHALT	201,000		AGGREGATE BASE COURSE
7,073	1412	PAVEMENT		MTN	INCIDENTAL STONE BASE
88	HR	PROOF ROLLING	52,153	M3	SHOULDER BORROW
2,000	M3	SELECT GRANULAR MATERIAL	79,600	L	PRIME COAT
3,200	M2	FABRIC FOR SOIL STABILIZATION	1,200	M2	INCIDENTAL MILLING
1,300	М3	GENERIC GRADING ITEM SELECT GRANULAR MATERIAL FOR	2,680	MTN	ASPHALT CONC BASE COURSE, TYPE B25.0B
5,400	M2	TEMPORARY FABRIC WALL GENERIC GRADING ITEM FABRIC FOR TEMPORARY FABRIC		MTN	B25.0C
2.065) (T) I	WALL		MTN	COURSE, TYPE I19.0B
		FOUNDATION CONDITIONING MATE- RIAL, MINOR STRS		MTN	COURSE, TYPE I19.0C
258 36	M M	375MM SIDE DRAIN PIPE 450MM SIDE DRAIN PIPE	19,240	MTN	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
1,896	M	375MM RC PIPE CULVERTS, CLASS III	45,110	MTN	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
1,730.4	M	450MM RC PIPE CULVERTS, CLASS III	5,855	MTN	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
2,342.4	M	600MM RC PIPE CULVERTS, CLASS III			ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
890.4	M	750MM RC PIPE CULVERTS, CLASS III			ASPHALT PLANT MIX PAVEMENT REPAIR
592.8	M	900MM RC PIPE CULVERTS, CLASS III	45,850 229		MILLED RUMBLE STRIPS RIGHT OF WAY MARKERS
129.6	M	1050MM RC PIPE CULVERTS, CLASS III	805 500	M3 M3	SUBDRAIN EXCAVATION SUBDRAIN FINE AGGREGATE
96	M	1350MM RC PIPE CULVERTS, CLASS III	1,200	M	150MM PERFORATED SUBDRAIN PIPE
210	M	****MM RC PIPE CULVERTS, CLASS IV	120		150MM SUBDRAIN PIPE WYES, TEES, & ELBOWS
79.2	М	(1500MM) ****MM RC PIPE CULVERTS, CLASS	9	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET
	.=	IV (450MM)	18 3,300	M M	150MM OUTLET PIPE (SUBDRAINS) SHOULDER DRAIN
		(/			

			20	EA	SIGN ERECTION, TYPE D
			101	EA	SIGN ERECTION, TYPE E
			34	EA	SIGN ERECTION, TYPE F
3,300	M	100MM SHOULDER DRAIN PIPE	23	EA	SIGN ERECTION, TYPE ***
270	M	100MM OUTLET PIPE (SHOULDER			(GROUND MOUNTED)
		DRAINS)			(A)
21	EA	CONCRETE PAD FOR SHOULDER	15	EA	SIGN ERECTION, TYPE *** (GROUND MOUNTED)
12.0	1.60	DRAIN PIPE OUTLET			(B)
13.8	M3	ENDWALLS PENEODGED ENDWALLS	18	EA	SIGN ERECTION, MILEMARKERS
12.4	M3	REINFORCED ENDWALLS	27	EA	DISPOSAL OF SIGN SYSTEM, U-
4.71	M3	PIPE COLLARS PIPE PLUGS			CHANNEL
1	M3	MASONRY DRAINAGE STRUCTURES	80	M2	WORK ZONE SIGNS (STATIONARY)
174 17.43	EA M	MASONRY DRAINAGE STRUCTURES MASONRY DRAINAGE STRUCTURES	67	M2	WORK ZONE SIGNS (PORTABLE)
9	EA	FRAME WITH GRATE, STD 840.22	27	M2	WORK ZONE SIGNS (BARRICADE
26	EA	FRAME WITH TWO GRATES, STD			MOUNTED)
20	EA	840.****	2	EA	FLASHING ARROW PANELS, TYPE C
		(840.20)	2	EA	CHANGEABLE MESSAGE SIGNS
3	EA	FRAME WITH TWO GRATES, STD	3	EA	WARNING FLAG SETS
		840.16	245	EA	DRUMS
123	EA	FRAME WITH TWO GRATES, STD	110	EA	CONES
		840.22	20	M	BARRICADES (TYPE II)
13	EA	FRAME WITH TWO GRATES, STD 840.29	120	M	BARRICADES (TYPE III)
6	EA	FRAME WITH COVER, STD 840.54	2,640	HR	FLAGGER
4	EA	***MM SLUICE GATE	9	EA EA	WARNING LIGHTS (TYPE B)
	Lii	(900MM)	1	EA EA	TEMPORARY CRASH CUSHIONS TRUCK MOUNTED IMPACT ATTENUA-
2,885	M	SHOULDER BERM GUTTER	1	EA	TOR (45 MPH)
3	EA	MODIFIED CONCRETE FLUME	2	EA	TRUCK MOUNTED IMPACT ATTENUA-
350	M	CONCRETE EXPRESSWAY GUTTER	_		TOR (60 MPH)
175	M2	100MM CONCRETE PAVED DITCH	220	M	PORTABLE CONCRETE BARRIER
270	M2	125MM MONOLITHIC CONCRETE IS-			(DRAINAGE)
		LANDS (SURFACE MOUNTED)	262	EA	TEMPORARY RAISED PAVEMENT
685	M2	125MM MONOLITHIC CONCRETE IS-			MARKERS
		LANDS (KEYED IN)	19,842	M	THERMOPLASTIC PAVEMENT MARKING
610	M2	GENERIC PAVING ITEM	17.570		LINES (100MM, 2.3MM)
2	Б.	REINFORCED CONC DRIVEWAY	17,572	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 3.1MM)
2	EA	CONVERT EXISTING DROP INLET TO JUNCTION BOX	45,600	M	THERMOPLASTIC PAVEMENT MARKING
1	EA	CONVERT EXISTING JUNCTION BOX	43,000	IVI	LINES (150MM, 2.3MM)
1	LA	TO DROP INLET	5,980	M	THERMOPLASTIC PAVEMENT MARKING
7,410.45	M	STEEL BM GUARDRAIL			LINES (150MM, 3.1MM)
58.35	M	STEEL BM GUARDRAIL, SHOP	640	M	THERMOPLASTIC PAVEMENT MARKING
		CURVED			LINES (200MM, 2.3MM)
4	EA	STEEL BM GUARDRAIL TERMINAL	1,450	M	THERMOPLASTIC PAVEMENT MARKING
		SECTIONS			LINES (300MM, 2.3MM)
20	EA	ADDITIONAL GUARDRAIL POSTS	56	M	THERMOPLASTIC PAVEMENT MARKING LINES (600MM, 3.1MM)
1	EA	GUARDRAIL ANCHOR UNITS, TYPE	92	EA	THERMOPLASTIC PAVEMENT MARKING
10	EA	AT-1	72	LA	SYMBOL (2.3MM)
12	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1	106,818	M	PAINT PAVEMENT MARKING LINES
20	EA	GUARDRAIL ANCHOR UNITS, TYPE			(100MM)
		III	160	M	PAINT PAVEMENT MARKING LINES
44	EA	GUARDRAIL ANCHOR UNITS, TYPE			(200MM)
		350	88	M	PAINT PAVEMENT MARKING LINES
2	EA	GUARDRAIL ANCHOR UNITS, TYPE	49	EA	(600MM)
		M-350	48	EA M	PAINT PAVEMENT MARKING SYMBOL REMOVAL OF PAVEMENT MARKING
156.21	M	REMOVE EXISTING GUARDRAIL	1,500	M	LINES (100MM)
11.43	M	TEMPORARY STEEL BM GUARDRAIL	1,104	EA	PERMANENT RAISED PAVEMENT
2	EA	TEMPORARY STEEL BM GUARDRAIL, TERMINAL SECTIONS	-,		MARKERS
4,504.6	M	CABLE GUIDERAIL	21	EA	2.1M U-CHANNEL POSTS
6,000	M	DOUBLE FACED CABLE GUIDERAIL	150	EA	FLEXIBLE DELINEATORS (CRYSTAL)
44	EA	CABLE GUIDERAIL ANCHOR UNITS	60	EA	FLEXIBLE DELINEATORS (YELLOW)
24,525	M	WOVEN WIRE FENCE, 1200MM FAB-	74	EA	FLEXIBLE DELINEATORS (CRYSTAL
21,525		RIC			& RED)
2,575	EA	100MM TIMBER FENCE POSTS,	74	EA	FLEXIBLE DELINEATORS (YELLOW &
		2.30M LONG	21	E.4	RED)
885	EA	125MM TIMBER FENCE POSTS,	21	EA	OBJECT MARKERS (END OF ROAD)
		2.50M LONG	/5	MTN	FOUNDATION CONDITIONING MATE- RIAL, UTILITIES CLASS *******
450	M	ADDITIONAL BARBED WIRE			(I)
		PLAIN RIP RAP, CLASS I	75	MTN	BEDDING MATERIAL, UTILITIES
		PLAIN RIP RAP, CLASS B			CLASS *******
10,500	M2	FILTER FABRIC FOR DRAINAGE			(I)
9	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	2	MTN	PAVEMENT REPAIR FOR UTILITY
35	MTN	GENERIC EROSION CONTROL ITEM		.,	WORK
33	1VI I IN	BOULDERS	6.5	M	150MM DI WATER PIPE, PC 2.41MPA
19	М3	REINFORCED CONCRETE SIGN FOOT-	125	M	200MM DI WATER PIPE, PC
		INGS	123	171	2.41MPA
3	M3	PLAIN CONCRETE SIGN FOOTINGS	30	M	20MM COPPER WATER PIPE, TYPE K
6,426	KG	SUPPORTS, BREAKAWAY STEEL BEAM	1,347	M	200MM PVC WATER PIPE, SDR 21,
4,691	KG	SUPPORTS, SIMPLE STEEL BEAM			1.38MPA WP
1,099	M	SUPPORTS, 4.5KG STEEL	187	M	300MM PVC WATER PIPE, SDR 21,
	F.,	U-CHANNEL			1.38MPA WP
18	EA	SUPPORTS, 3KG STEEL U-CHANNEL			

18 EA SUPPORTS, 3KG STEEL U-CHANNEL

1,521	KG	DUCTILE IRON WATER PIPE FITTINGS, 1.72MPA MIN WP		4 EA	DETECTOR CHANNEL (TYPE 2070L)
1	EA	20MM CORPORATION STOP			
2	EA	150MM GATE VALVE & VALVE BOX,			
		1.38MPA WP			CULVERT ITEMS
		(1.38MPA)			
5	EA	200MM GATE VALVE & VALVE BOX,	Lump Sun	LS	CULVERT EXCAVATION, STA *****
		****MPA WP	Lump Sun	ı Lo	(255+22.00 -L-)
	EA	(1.38MPA)	14'	7 MTN	
1	EA	*** X ***MM TAPPING SADDLE (200MM X 20MM)	• •		IAL, BOX CULVERT
1	EA	***MM BLOW OFF ASSEMBLY	233.	5 M3	CLASS A CONCRETE (CULVERT)
1	LA	(50MM)	15,12		REINFORCING STEEL (CULVERT)
2	EA	RELOCATE EXISTING FIRE HYDRANT			,
82	M	***MM STEEL ENCASEMENT PIPE,			
02		****MM THICK, BY OPEN CUT			
		(300MM, 5.00MM)			STRUCTURE ITEMS
1	EA	GENERIC UTILITY ITEM			
		INSTALL WATER METER			CONSTRUCTION MARKENANCE O
3,050	M	TEMPORARY SILT FENCE	Lump Sun	LS	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMP ACCESS AT STA
1,050	MTN	STONE FOR EROSION CONTROL,			***********
		CLASS A			(190+89.000 -L-LT)
15,000	MTN	STONE FOR EROSION CONTROL,	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		CLASS B			** AT STATION ********
6,400		SEDIMENT CONTROL STONE			(1,181+85.000 -L-)
174	HA	TEMPORARY MULCHING	Lump Sun	LS.	FOUNDATION EXCAVATION FOR BENT
7,050	KG	SEED FOR TEMPORARY SEEDING			** AT STATION *******
56.75	MTN	FERTILIZER FOR TEMPORARY SEED-			(1,190+89.000 -L-LT)
		ING	Lump Sun	LS.	FOUNDATION EXCAVATION FOR BENT
1,540	M	TEMPORARY SLOPE DRAINS			** AT STATION ************************************
130	EA	INLET PROTECTION AT TEMPORARY	Lump Surr	LS	FOUNDATION EXCAVATION FOR BENT
4 # 9 4 # 0		SLOPE DRAINS	Lump Sun	Lo	** AT STATION *********
153,650	M3	SILT EXCAVATION			(1,199+75.000 -L-)
8,750	M2	SYNTHETIC ROVING	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
4,375	M2	MATTING FOR EROSION CONTROL			** AT STATION ********
1,280	M2	PERMANENT SOIL REINFORCEMENT			(1,238+35.000 -L-)
20.5		MAT	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
385	M	6.4MM HARDWARE CLOTH			** AT STATION *********
2	EA	***X***X***MM PERFORATED CS			(1,245+73.259 -L-)
		PIPE TEE RISER, 1.63MM THICK (450MM X 450MM X 450MM)	Lump Sun	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
1	EA	***X ***X***MM PERFORATED CS			(1,276+55.853 -L-)
	Lit	PIPE TEE RISER, 2.01MM THICK	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		(800MM X 800MM X 800MM)	Lump Sun	Lo	** AT STATION *********
2	EA	***X ***X***MM PERFORATED CS			(4,190+89.000 -L-RT)
		PIPE TEE RISER, 2.01MM THICK	9,087.	8 M2	REINFORCED CONCRETE DECK SLAB
		(900MM X 900MM X 900MM)	7,717.	5 M2	GROOVING BRIDGE FLOORS
150	M3	STILLING BASINS	1,451.	9 M3	CLASS A CONCRETE (BRIDGE)
168	HA	SEEDING & MULCHING	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
98	HA	MOWING			*******
2,125	KG	SEED FOR REPAIR SEEDING			(181+85.000 -L-)
7	MTN	FERTILIZER FOR REPAIR SEEDING	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
4,725	KG	SEED FOR SUPPLEMENTAL SEEDING			********
282.5	MTN	FERTILIZER TOPDRESSING			(190+89.000 -L-LT)
0.57	HA	SPECIALIZED SEEDING UNDER	Lump Sun	LS	BRIDGE APPROACH SLABS, STATION
		GUIDERAIL & GUARDRAIL (CENTI-			(190+89.000 -L-RT)
		PEDE)	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
20	M	IMPERVIOUS DIKE	Zamp San	. 20	******
30	HR	SPECIALIZED HAND MOWING			(199+75.000 -L-)
56	EA	RESPONSE FOR EROSION CONTROL	Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
125	M3	CULVERT DIVERSION CHANNEL			*******
11	HA	REFORESTATION			(238+35.000 -L-)
0.25	HA	STREAMBANK REFORESTATION	Lump Sun	LS.	BRIDGE APPROACH SLABS, STATION
61	EA	GENERIC EROSION CONTROL ITEM			(245+73.259 -L-)
4.000		ROOTWADS	Lump Sun	LS	BRIDGE APPROACH SLABS, STATION
1,300	M2	GENERIC EROSION CONTROL ITEM COIR FIBER MAT	Lump Sun	Lo	**********
120	M	SIGNAL CABLE			(276+55.853 -L-)
3	EA	VEHICLE SIGNAL HEAD (300MM, 3	139,44	5 KG	REINFORCING STEEL (BRIDGE)
3	LA	SECTION)	13,550) KG	SPIRAL COLUMN REINFORCING
3	EA	VEHICLE SIGNAL HEAD (300MM, 5			STEEL (BRIDGE)
3	Lit	SECTION)	1,311.2	5 M	1372MM PRESTRESSED CONCRETE
122	M	MESSENGER CABLE (9.52MM)			GIRDERS
55	M	TRENCHING (UNPAVED)	747,80) LS	APPROX KG STRUCTURAL
3	EA	JUNCTION BOX (STANDARD SIZE)			STEEL
4	EA	WOOD POLE	8,44		HP310X79 STEEL PILES
6	EA	GUY ASSEMBLY	Lump Sun	LS	GALVANIZING STEEL PILES AT STA
1	EA	25MM RISER WITH WEATHERHEAD			**************************************
4	EA	50MM RISER WITH WEATHERHEAD	Lump Sun	LS	GALVANIZING STEEL PILES AT STA
188	M	INDUCTIVE LOOP SAWCUT	Lump Sun	. டல	************
268	M	LEAD-IN CABLE			(190+89.000 -L-RT)
1	EA	CONTROLLER WITH CABINET (TYPE	1,264.66	6 M	CONCRETE BARRIER RAIL
	1	2070L, POLE MOUNTED)	1,98		100MM SLOPE PROTECTION
		•			

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4,245 MTN PLAIN RIP RAP CLASS B 3,216 M2 FILTER FABRIC FOR DRAINAGE
Lump Sum LS POT BEARINGS
Lump Sum LS ELASTOMERIC BEARINGS
Lump Sum LS EVAZOTE JOINT SEALS

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L030722 007

STATE FUNDED PROPOSAL, CONTRACTOR LICENSE REQUIRED TO BID

CONTRACT ID: C200738 34398.3.8 DIV OFFICE ABERDEEN LENGTH = 5.945 KM

COUNTY : RICHMOND

GRADING, DRAINAGE, PAVING & STRUCTURES.

MBE GOAL 10.0% WBE 5.0% COMPLETION DATE: DEC 31 2006

US-220 BYPASS FROM SOUTH OF SR-1448 TO NORTH OF SR-1452.

		ROADWAY ITEMS	33.6	M	450MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
	T C	MODIL IZATION	24	M	600MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	MOBILIZATION	31	EA	***MM BIT COAT CS PIPE ELBOWS,
Lump Sum	LS	CONSTRUCTION SURVEYING	51	LA	TYPE B ****MM THICK
Lump Sum	LS	CLEARING & GRUBBING HEC-			(300MM, 1.63MM)
		TARE(S)	3	EA	
2	HA	SUPPLEMENTARY CLEARING & GRUB-	3	EA	400MM BIT COAT CS PIPE ELBOWS,
		BING			TYPE B 1.63MM THICK
2	EA	SEALING ABANDONED WELLS	2	EA	600MM BIT COAT CS PIPE ELBOWS,
939,400	M3				TYPE B 1.63MM THICK
		UNCLASSIFIED EXCAVATION	313.7	M	PIPE REMOVAL
Lump Sum	LS	REINFORCED BRIDGE APPROACH	156	M2	150MM SLOPE PROTECTION
		FILL, STATION ************************************	Lump Sum	LS	FINE GRADING
		(16+98.476 - Y8-)	500	KG	SEALING EXISTING PAVEMENT
Lump Sum	LS	REINFORCED BRIDGE APPROACH	500		CRACKS
		FILL, STATION ************************************	32,560	M2	LIME TREATED SOIL (SLURRY
		(20+66.960 -Y1-)	32,300	1412	METHOD)
39,000	М3	UNDERCUT EXCAVATION	360	MTN	
4,000	MTN	CLASS IV SUBGRADE STABILIZA-			LIME FOR LIME TREATED SOIL
		TION	94,500		AGGREGATE BASE COURSE
318,800	M3	BORROW EXCAVATION	75,970	M2	***MM SOIL CEMENT BASE
19,500	M3	DRAINAGE DITCH EXCAVATION			(180MM)
1,150	M	BERM DITCH CONSTRUCTION	2,280	MTN	PORTLAND CEMENT FOR SOIL CE-
32,700	M2	REMOVAL OF EXISTING ASPHALT			MENT BASE
32,700	1112	PAVEMENT	73,800	L	ASPHALT CURING SEAL
35	HR	PROOF ROLLING	250	MTN	INCIDENTAL STONE BASE
			26,100	L	PRIME COAT
34,800	M3	SELECT GRANULAR MATERIAL	19,600	M2	MILLING ASPHALT PAVEMENT, **MM
26,340	M2	FABRIC FOR SOIL STABILIZATION	17,000	1112	DEPTH
1,070	MTN	SELECT MATERIAL, CLASS II			(55MM)
1,395	MTN	FOUNDATION CONDITIONING MATE-	1,960	M2	INCIDENTAL MILLING
		RIAL, MINOR STRS			
73.2	M	375MM SIDE DRAIN PIPE	7,710	MIN	ASPHALT CONC BASE COURSE, TYPE B25.0B
51.6	M	300MM RC PIPE CULVERTS, CLASS	40.500	3 cm 2	
		III	10,700	MTN	ASPHALT CONC INTERMEDIATE
763.2	M	375MM RC PIPE CULVERTS, CLASS			COURSE, TYPE I19.0B
703.2		III	25,890	MTN	ASPHALT CONC INTERMEDIATE
608.4	M	450MM RC PIPE CULVERTS, CLASS			COURSE, TYPE I19.0C
008.4	IVI	III	8,570	MTN	ASPHALT CONC SURFACE COURSE,
500.0					TYPE S9.5B
598.8	M	600MM RC PIPE CULVERTS, CLASS III	21,580	MTN	ASPHALT CONC SURFACE COURSE,
4#0.0					TYPE S12.5C
658.8	M	750MM RC PIPE CULVERTS, CLASS	2,609	MTN	ASPHALT BINDER FOR PLANT MIX,
		III			GRADE PG 64-22
139.2	M	900MM RC PIPE CULVERTS, CLASS	1,187	MTN	ASPHALT BINDER FOR PLANT MIX,
		III			GRADE PG 70-22
242.4	M	1200MM RC PIPE CULVERTS, CLASS	300	MTN	ASPHALT PLANT MIX PAVEMENT
		III			REPAIR
73.2	M	1350MM RC PIPE CULVERTS, CLASS	23,850	M	MILLED RUMBLE STRIPS
		III	190	EA	RIGHT OF WAY MARKERS
202.8	M	****MM RC PIPE CULVERTS, CLASS	1,990	M3	SUBDRAIN EXCAVATION
		IV			
		(1200MM)	995	M3	SUBDRAIN FINE AGGREGATE
57.6	M	****MM RC PIPE CULVERTS, CLASS	2,400	M	150MM PERFORATED SUBDRAIN PIPE
		IV	240	EA	150MM SUBDRAIN PIPE WYES,
		(450MM)			TEES, & ELBOWS
106.8	M	****MM RC PIPE CULVERTS, CLASS	16	EA	CONCRETE PAD FOR SUBDRAIN PIPE
		IV			OUTLET
		(600MM)	32	M	150MM OUTLET PIPE (SUBDRAINS)
129.6	M	****MM RC PIPE CULVERTS, CLASS	10	MTN	BLOTTING SAND
		IV	26.1	M3	ENDWALLS
		(750MM)	3.8	M3	REINFORCED ENDWALLS
169.2	M	****MM RC PIPE CULVERTS, CLASS	3.68	M3	
		IV			PIPE COLLARS
		(900MM)	0.4	M3	PIPE PLUGS
48	M	400MM CS PIPE CULVERTS, 1.63MM	72	EA	MASONRY DRAINAGE STRUCTURES
		THICK	7.4	M	MASONRY DRAINAGE STRUCTURES
19.2	M	450MM CS PIPE CULVERTS, 1.63MM	13	EA	FRAME WITH TWO GRATES, STD
		THICK			840.****
12	M	800MM CS PIPE CULVERTS, 2.01MM			(840.20)
		THICK	57	EA	FRAME WITH TWO GRATES, STD
243.6	M	300MM BIT COAT CS PIPE CUL-			840.22
		VERTS, TYPE B 1.63MM THICK	5	EA	FRAME WITH TWO GRATES, STD
163.2	M	400MM BIT COAT CS PIPE CUL-			840.24
		VERTS, TYPE B 1.63MM THICK	2	EA	FRAME WITH TWO GRATES, STD
					840.29

			2	EA	GUIDE SIGN RELOCATION - TEMP (GROUND TO GROUND MOUNTED
			1,250	EA	SIGNS) TEMPORARY RAISED PAVEMENT
1,250 2	M EA	SHOULDER BERM GUTTER MODIFIED CONCRETE FLUME			MARKERS
110	M2	100MM CONCRETE PAVED DITCH	35,500	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 2.3MM)
560	M2	125MM MONOLITHIC CONCRETE IS- LANDS (KEYED IN)	13,400	M	THERMOPLASTIC PAVEMENT MARKING LINES (100MM, 3.1MM)
45.6	M	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	1,000	M	THERMOPLASTIC PAVEMENT MARKING LINES (200MM, 2.3MM)
5	EA	CONVERT EXISTING CATCH BASIN TO DROP INLET	20	M	THERMOPLASTIC PAVEMENT MARKING
4,751.07	M	STEEL BM GUARDRAIL	75	EA	LINES (600MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING
167.64	M	STEEL BM GUARDRAIL, SHOP CURVED	94,250	M	SYMBOL (2.3MM) PAINT PAVEMENT MARKING LINES
10 2	EA EA	ADDITIONAL GUARDRAIL POSTS GUARDRAIL ANCHOR UNITS, TYPE	450	M	(100MM) PAINT PAVEMENT MARKING LINES
		**************************************			(200MM)
3	EA	GUARDRAIL ANCHOR UNITS, TYPE	300	M	PAINT PAVEMENT MARKING LINES (600MM)
		(BIC)	130 150	EA M	PAINT PAVEMENT MARKING SYMBOL REMOVAL OF PAVEMENT MARKING
4	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1	20	M	LINES (100MM) REMOVAL OF PAVEMENT MARKING
20	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1			LINES (200MM)
12	EA	GUARDRAIL ANCHOR UNITS, TYPE III	20	M	REMOVAL OF PAVEMENT MARKING LINES (600MM)
35	EA	GUARDRAIL ANCHOR UNITS, TYPE	600 1,600	M EA	CURING COMPOUND REMOVAL, LINES PERMANENT RAISED PAVEMENT
500	M	350 REMOVE EXISTING GUARDRAIL	6	EA	MARKERS
110.49	M	TEMPORARY STEEL BM GUARDRAIL	80	EA	2.1M U-CHANNEL POSTS FLEXIBLE DELINEATORS (CRYSTAL)
2	EA	GUARDRAIL ANCHOR UNITS, TYPE	30	EA	FLEXIBLE DELINEATORS (YELLOW)
5,415	M	350 TEMPORARY DOUBLE FACED CABLE GUIDERAIL	40	EA	FLEXIBLE DELINEATORS (CRYSTAL
28	EA	CABLE GUIDERAIL ANCHOR UNITS			& RED)
11,500	M	WOVEN WIRE FENCE, 1200MM FAB-	15	EA	FLEXIBLE DELINEATORS (YELLOW & RED)
2,500	EA	RIC 100MM TIMBER FENCE POSTS,	6	EA	OBJECT MARKERS (END OF ROAD)
440	EA	2.30M LONG 125MM TIMBER FENCE POSTS,	77	MTN	FOUNDATION CONDITIONING MATE- RIAL, UTILITIES CLASS *******
		2.50M LONG	77	MTN	(IV) BEDDING MATERIAL, UTILITIES
100	M	ADDITIONAL BARBED WIRE			CLASS ********
		PLAIN RIP RAP, CLASS I PLAIN RIP RAP, CLASS B	22	3.47D).1	(IV)
7,500	M2	FILTER FABRIC FOR DRAINAGE	22	MIN	PAVEMENT REPAIR FOR UTILITY WORK
4	EA	PREFORMED SCOUR HOLES WITH	8	M	20MM COPPER WATER PIPE, TYPE K
9	М3	LEVEL SPREADER APRON REINFORCED CONCRETE SIGN FOOT-	271	M	150MM PVC WATER PIPE, SDR 21, 1.38MPA WP
		INGS	1,106	M	300MM PVC WATER PIPE, SDR 21,
3,087	M3 KG	PLAIN CONCRETE SIGN FOOTINGS SUPPORTS, BREAKAWAY STEEL BEAM	1,203	KG	1.38MPA WP DUCTILE IRON WATER PIPE FIT-
1,291	KG	SUPPORTS, SIMPLE STEEL BEAM	1,203	KO	TINGS, 1.72MPA MIN WP
910	M	SUPPORTS, 4.5KG STEEL	1	EA	20MM CORPORATION STOP
0	EA	U-CHANNEL	5	EA	150MM GATE VALVE & VALVE BOX, 1.38MPA WP
8 16	EA EA	SUPPORTS, 3KG STEEL U-CHANNEL SIGN ERECTION, TYPE D	7	EA	300MM GATE VALVE & VALVE BOX,
89	EA	SIGN ERECTION, TYPE E			****MPA WP
24	EA	SIGN ERECTION, TYPE F	2	EA	(1.38MPA) 300MM TRANSITION COUPLING,
15	EA	SIGN ERECTION, TYPE *** (GROUND MOUNTED)	-	271	*******
		(A)		г.	(PVC TO AC)
11	EA	SIGN ERECTION, TYPE ***	1	EA EA	RELOCATE EXISTING WATER METER RELOCATE EXISTING FIRE HYDRANT
		(GROUND MOUNTED) (B)	974	M	FILL OR REMOVE ABANDONED 300MM
8	EA	SIGN ERECTION, MILEMARKERS	<i>71</i> .		PIPE, ********
69	EA	DISPOSAL OF SIGN SYSTEM, U-	76	M	(AC WATER) 450MM STEEL ENCASEMENT PIPE.
1	EA	CHANNEL DISPOSAL OF SIGN SYSTEM, WOOD	,,,		****MM THICK, BY BORING &
131	M2	WORK ZONE SIGNS (STATIONARY)			JACKING
30	M2	WORK ZONE SIGNS (PORTABLE)	110	M	(8MM) 600MM STEEL ENCASEMENT PIPE,
25	M2	WORK ZONE SIGNS (BARRICADE	110	141	****MM THICK, BY BORING &
		MOUNTED)			JACKING
3	EA	FLASHING ARROW PANELS, TYPE C	44	г.	(8MM)
3	EA	CHANGEABLE MESSAGE SIGNS	41	EA	GENERIC UTILITY ITEM 300MM RESTRAINED RETAINER
400	EA	WARNING FLAG SETS			GLAND, 1.72MPA WP
400	EA EA	DRUMS CONIES	2,500	M	TEMPORARY SILT FENCE
150 110	EA M	CONES BARRICADES (TYPE III)	700	MTN	STONE FOR EROSION CONTROL,
2,500	M HR	FLAGGER) (m: -	CLASS A
12	EA	WARNING LIGHTS (TYPE B)	11,125	MTN	STONE FOR EROSION CONTROL, CLASS B
2	EA	TRUCK MOUNTED IMPACT ATTENUA-	4.000	MTN	SEDIMENT CONTROL STONE
		TOR (45 MPH)	88.5	HA	TEMPORARY MULCHING
2	EA	TRUCK MOUNTED IMPACT ATTENUA- TOR (60 MPH)	3,675	KG	SEED FOR TEMPORARY SEEDING
200	EA	TUBULAR MARKERS (FIXED)			

200 EA TUBULAR MARKERS (FIXED)

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29.5	MTN	FERTILIZER FOR TEMPORARY SEED- ING
1,055	M	TEMPORARY SLOPE DRAINS
62	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
58,500	M3	SILT EXCAVATION
6,000	M2	SYNTHETIC ROVING
3,200	M2	MATTING FOR EROSION CONTROL
250	M	6.4MM HARDWARE CLOTH
1	EA	***X ***X***MM PERFORATED CS
		PIPE TEE RISER, 2.01MM THICK
100	1.60	(800MM X 800MM X 800MM)
100 87.5	M3 HA	STILLING BASINS SEEDING & MULCHING
50	HA HA	MOWING
1.075	KG	SEED FOR REPAIR SEEDING
,	MTN	FERTILIZER FOR REPAIR SEEDING
2.450	KG	SEED FOR SUPPLEMENTAL SEEDING
147.25		FERTILIZER TOPDRESSING
1.3	HA	SPECIALIZED SEEDING UNDER
1.5	IIA	GUIDERAIL & GUARDRAIL (CENTI-
		PEDE)
35	M	IMPERVIOUS DIKE
25	HR	SPECIALIZED HAND MOWING
24	EA	RESPONSE FOR EROSION CONTROL
715	M3	CULVERT DIVERSION CHANNEL
6	HA	REFORESTATION
135	M	SIGNAL CABLE
5	EA	VEHICLE SIGNAL HEAD (300MM, 3 SECTION)
1	EA	VEHICLE SIGNAL HEAD (300MM, 5 SECTION)
135	M	MESSENGER CABLE (9.52MM)
130	M	TRENCHING (UNPAVED)
4	EA	WOOD POLE
8	EA	GUY ASSEMBLY
1	EA	25MM RISER WITH WEATHERHEAD
3	EA	50MM RISER WITH WEATHERHEAD
100	M	INDUCTIVE LOOP SAWCUT
305	M	LEAD-IN CABLE
1	EA	MICROWAVE VEHICLE DETECTOR
85	M	TYPE 2 LEAD-IN CABLE
6	EA	SIGN FOR SIGNALS
1	EA	CONTROLLER WITH CABINET (TYPE 2070L, POLE MOUNTED)
3	EA	DETECTOR CHANNEL (TYPE 2070L)

CULVERT ITEMS

Lump Sum	LS	CULVERT EXCAVATION, STA ******
		(57+00.000-L-)
327	MTN	FOUNDATION CONDITIONING MATER-
		IAL, BOX CULVERT
458.6	M3	CLASS A CONCRETE (CULVERT)
35,479	KG	REINFORCING STEEL (CULVERT)

STRUCTURE ITEMS

Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
2,857.9	M2	REINFORCED CONCRETE DECK SLAB
2,481.5	M2	GROOVING BRIDGE FLOORS
439	M3	CLASS A CONCRETE (BRIDGE)

(19+16.856-L-) Lump Sum LS BRIDGE APPROACH SLABS, STATION (41+34.347-L-) $Lump\ Sum \qquad LS \qquad BRIDGE\ APPROACH\ SLABS,\ STATION$ (62+16.062-L-) 39,656 KG REINFORCING STEEL (BRIDGE) 4,019 KG SPIRAL COLUMN REINFORCING STEEL (BRIDGE) 1,249.394 M 1372MM PRESTRESSED CONCRETE GIRDERS 1,737.5 M HP310X79 STEEL PILES 52 EA STEEL PILE POINTS 401.244 M CONCRETE BARRIER RAIL 1,960 M2 100MM SLOPE PROTECTION Lump Sum LS ELASTOMERIC BEARINGS

Lump Sum LS EVAZOTE JOINT SEALS

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L030722 008

STATE FUNDED PROPOSAL, CONTRACTOR LICENSE REQUIRED TO BID

CONTRACT ID: C200280 34398.3.9 DIV OFFICE ABERDEEN LENGTH = 10.382 KM

COUNTY : RICHMOND

GRADING, DRAINAGE, PAVING & STRUCTURES.

MBE GOAL 10.0% WBE 5.0% COMPLETION DATE: DEC 31 2006

US-220 BYPASS FROM SOUTH OF SR-1455 TO NORTH OF NC-73.

		ROADWAY ITEMS	50.4	M	600MM BIT COAT CS PIPE CUL- VERTS, TYPE B 1.63MM THICK
I C	1.0	MODILIZATION	31	EA	***MM BIT COAT CS PIPE ELBOWS, TYPE B ****MM THICK
Lump Sum	LS	MOBILIZATION CONSTRUCTION SURVEYING			(300MM, 1.63MM)
Lump Sum Lump Sum	LS LS	CONSTRUCTION SURVEYING CLEARING & GRUBBING HEC- TARE(S)	2	EA	450MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
2	HA	SUPPLEMENTARY CLEARING & GRUB-	109.5	M	PIPE REMOVAL
		BING	210	M2	150MM SLOPE PROTECTION
1,291,000	M3	UNCLASSIFIED EXCAVATION	Lump Sum	LS	FINE GRADING
Lump Sum	LS	REINFORCED BRIDGE APPROACH	194,000 250	MTN	AGGREGATE BASE COURSE INCIDENTAL STONE BASE
		FILL, STATION ************************************	214,000	L	PRIME COAT
Lump Sum	LS	REINFORCED BRIDGE APPROACH	60	MTN	ASPHALT CONC BASE COURSE, TYPE
		FILL, STATION ************************************			B25.0B
Lump Sum	LS	REINFORCED BRIDGE APPROACH	42,600	MTN	ASPHALT CONC BASE COURSE, TYPE B25.0C
r		FILL, STATION ************************************	16,100	MTN	ASPHALT CONC INTERMEDIATE COURSE, TYPE 119.0B
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION **********	42,000	MTN	ASPHALT CONC INTERMEDIATE COURSE, TYPE 119.0C
		(70+98.448-L-)	14,100	MTN	ASPHALT CONC SURFACE COURSE,
18,000	M3	UNDERCUT EXCAVATION			TYPE S9.5A
2,700	MTN	CLASS IV SUBGRADE STABILIZA- TION	42,300	MTN	ASPHALT CONC SURFACE COURSE, TYPE S12.5C
64,000	M3	BORROW EXCAVATION	5,482	MTN	ASPHALT BINDER FOR PLANT MIX,
6,900	M3	DRAINAGE DITCH EXCAVATION			GRADE PG 64-22
1,330	M	BERM DITCH CONSTRUCTION	2,327	MTN	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
22,700	M2	REMOVAL OF EXISTING ASPHALT PAVEMENT	250	MTN	ASPHALT PLANT MIX PAVEMENT
1,750	M2	BREAKING OF EXISTING ASPHALT			REPAIR
12	HD	PAVEMENT	41,400	M	MILLED RUMBLE STRIPS
43	HR	PROOF ROLLING	256	EA	RIGHT OF WAY MARKERS
14,520	M3	SELECT GRANULAR MATERIAL	5,150	M3	SUBDRAIN EXCAVATION
10,520 3,100	M2 MTN	FABRIC FOR SOIL STABILIZATION FOUNDATION CONDITIONING MATE-	2,580 6,210	M3 M	SUBDRAIN FINE AGGREGATE 150MM PERFORATED SUBDRAIN PIPE
3,100	WITN	RIAL, MINOR STRS	621	EA	150MM SUBDRAIN PIPE WYES,
34.8	M	375MM SIDE DRAIN PIPE	021	2.1	TEES, & ELBOWS
174	M	450MM SIDE DRAIN PIPE	42	EA	CONCRETE PAD FOR SUBDRAIN PIPE
43.2	M	300MM RC PIPE CULVERTS, CLASS III	84	M	OUTLET 150MM OUTLET PIPE (SUBDRAINS)
1,716	M	375MM RC PIPE CULVERTS, CLASS	32.8	M3	ENDWALLS
,.		III	3.8	М3	REINFORCED ENDWALLS
1,209.6	M	450MM RC PIPE CULVERTS, CLASS	170	EA	MASONRY DRAINAGE STRUCTURES
2,920.8	M	III 600MM RC PIPE CULVERTS, CLASS	45.03	M	MASONRY DRAINAGE STRUCTURES
1.528.8	M	III 750MM RC PIPE CULVERTS, CLASS	26	EA	FRAME WITH TWO GRATES, STD 840.****
1,326.6	IVI	III	137	EA	(840.20) FRAME WITH TWO GRATES, STD
1,432.2	M	900MM RC PIPE CULVERTS, CLASS	137	L/I	840.22
192	M	III 1050MM RC PIPE CULVERTS, CLASS	1	EA	FRAME WITH TWO GRATES, STD 840.24
272.4	M	III 1200MM RC PIPE CULVERTS, CLASS	2	EA	FRAME WITH TWO GRATES, STD 840.29
100 6		III	4	EA	FRAME WITH COVER, STD 840.54
123.6	M	****MM RC PIPE CULVERTS, CLASS IV	3,000	M	SHOULDER BERM GUTTER
		(1200MM)	4	EA	MODIFIED CONCRETE FLUME
154.8	M	****MM RC PIPE CULVERTS, CLASS	50 72.8	M2 M	100MM CONCRETE PAVED DITCH PRECAST REINFORCED CONCRETE
		IV (1350MM)	72.0		BARRIER, SINGLE FACED
37.2	M	***MM CS PIPE CULVERTS, ****MM	5,292.09	M	STEEL BM GUARDRAIL
		THICK (900MM, 2.01MM)	34.29	M	STEEL BM GUARDRAIL, SHOP CURVED
32.4	M	600MM CS PIPE CULVERTS, 1.63MM THICK	10	EA	ADDITIONAL GUARDRAIL POSTS
18	M	800MM CS PIPE CULVERTS, 2.01MM	8	EA	GUARDRAIL ANCHOR UNITS, TYPE ************************************
309.6	M	THICK 300MM BIT COAT CS PIPE CUL-	1	EA	(B-77) GUARDRAIL ANCHOR UNITS, TYPE
507.0		VERTS, TYPE B 1.63MM THICK	•		******
12	M	400MM BIT COAT CS PIPE CUL-		г.	(BIC)
36	M	VERTS, TYPE B 1.63MM THICK 450MM BIT COAT CS PIPE CUL-	1	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
30		VERTS, TYPE B 1.63MM THICK			

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			860	M	PAINT PAVEMENT MARKING LINES
			190	M	(200MM) PAINT PAVEMENT MARKING LINES (600MM)
14	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1	62	EA	PAINT PAVEMENT MARKING SYMBOL
10	EA	GUARDRAIL ANCHOR UNITS, TYPE	450	M	REMOVAL OF PAVEMENT MARKING LINES (100MM)
34	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	30	M	REMOVAL OF PAVEMENT MARKING LINES (600MM)
2	EA	GUARDRAIL ANCHOR UNITS, TYPE	2	EA	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS
10,339.7	M	M-350 DOUBLE FACED CABLE GUIDERAIL	3,030	EA	PERMANENT RAISED PAVEMENT MARKERS
38	EA	CABLE GUIDERAIL ANCHOR UNITS	28	EA	2.1M U-CHANNEL POSTS
22,900	M	WOVEN WIRE FENCE, 1200MM FAB- RIC	106	EA	FLEXIBLE DELINEATORS (CRYSTAL)
5,000	EA	100MM TIMBER FENCE POSTS, 2.30M LONG	25 15	EA EA	FLEXIBLE DELINEATORS (YELLOW) FLEXIBLE DELINEATORS (CRYSTAL
900	EA	125MM TIMBER FENCE POSTS, 2.50M LONG	15	EA	& RED) FLEXIBLE DELINEATORS (YELLOW &
100	M	CHAIN LINK FENCE, 1200MM FABRIC	28	EA	RED) OBJECT MARKERS (TYPE **)
30	EA	METAL LINE POSTS FOR 1200MM			(3)
3	EA	CHAIN LINK FENCE METAL TERMINAL POSTS FOR	640	MTN	FOUNDATION CONDITIONING MATE- RIAL, UTILITIES CLASS ******* (IV)
22.000		1200MM CHAIN LINK FENCE	640	MTN	BEDDING MATERIAL, UTILITIES
22,900 1	M EA	ADDITIONAL BARBED WIRE DOUBLE GATES, ****MM HIGH,	040	WIII	CLASS ************* (IV)
		****MM WIDE, ****MM OPENING (1200MM, 4000MM, 8000MM)	100	MTN	PAVEMENT REPAIR FOR UTILITY
1,400	MTN	PLAIN RIP RAP, CLASS I	201 6		WORK
400	MTN	PLAIN RIP RAP, CLASS A	201.6	M	***MM DI WATER PIPE, CLASS ********** WP
	MTN	PLAIN RIP RAP, CLASS B			(100MM, CL 50, 2.41MPA WP)
10,400 7	M2 EA	FILTER FABRIC FOR DRAINAGE	1,301.3	M	***MM DI WATER PIPE, CLASS
,	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON			********** WP (250MM, CL 50, 2.41MPA WP)
85	EA	GENERIC EROSION CONTROL ITEM	137.4	M	20MM COPPER WATER PIPE, TYPE K
		LOG VANES	709.5	M	150MM PVC WATER PIPE, SDR 21,
19	М3	REINFORCED CONCRETE SIGN FOOT- INGS	41.7		1.38MPA WP
2	М3	PLAIN CONCRETE SIGN FOOTINGS	41.7	M	200MM PVC WATER PIPE, SDR 21, 1.38MPA WP
5,269	KG	SUPPORTS, BREAKAWAY STEEL BEAM	1,745.3	M	250MM PVC WATER PIPE, SDR 21,
4,243	KG	SUPPORTS, SIMPLE STEEL BEAM			1.38MPA WP
791	M	SUPPORTS, 4.5KG STEEL U-CHANNEL	2,246.8	KG	DUCTILE IRON WATER PIPE FIT- TINGS, 1.72MPA MIN WP
12	EA	SUPPORTS, 3KG STEEL U-CHANNEL	1	EA	20MM CORPORATION STOP
14	EA	SIGN ERECTION, TYPE D	2	EA	***MM GATE VALVE & VALVE BOX, ****MPA WP
67 24	EA EA	SIGN ERECTION, TYPE E SIGN ERECTION, TYPE F			(100MM, 1.38MPA WP)
26	EA	SIGN ERECTION, TYPE ***	10	EA	150MM GATE VALVE & VALVE BOX,
		(GROUND MOUNTED)	1	EA	1.38MPA WP 200MM GATE VALVE & VALVE BOX,
17	EA	(A) SIGN ERECTION, TYPE ***	•	LA	****MPA WP (1.38MPA WP)
		(GROUND MOUNTED) (B)	15	EA	250MM GATE VALVE & VALVE BOX,
12	EA	SIGN ERECTION, MILEMARKERS			****MPA WP (1.38MPA WP)
27	M2	WORK ZONE SIGNS (STATIONARY)	1	EA	*** X ***MM TAPPING SADDLE
67	M2	WORK ZONE SIGNS (PORTABLE)		2.1	(250MM X 20MM)
25	M2	WORK ZONE SIGNS (BARRICADE MOUNTED)	1	EA	RELOCATE EXISTING WATER METER
1	EA	FLASHING ARROW PANELS, TYPE C	5 3,000	EA M	RELOCATE EXISTING FIRE HYDRANT TEMPORARY SILT FENCE
1	EA	CHANGEABLE MESSAGE SIGNS			STONE FOR EROSION CONTROL,
8	EA	WARNING FLAG SETS			CLASS A
75 100	EA EA	DRUMS CONES	21,100	MTN	STONE FOR EROSION CONTROL, CLASS B
260	M	BARRICADES (TYPE III)	8.300	MTN	SEDIMENT CONTROL STONE
960	HR	FLAGGER	161	НА	TEMPORARY MULCHING
1	EA	WARNING LIGHTS (TYPE B)	6,175	KG	SEED FOR TEMPORARY SEEDING
1,110	EA	TEMPORARY RAISED PAVEMENT MARKERS	49.75	MTN	FERTILIZER FOR TEMPORARY SEED- ING
39,360	M	THERMOPLASTIC PAVEMENT MARKING	1,550	M	TEMPORARY SLOPE DRAINS
16,770	M	LINES (100MM, 2.3MM) THERMOPLASTIC PAVEMENT MARKING	140	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
1,190	M	LINES (100MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING	150,000 10,000	M3 M2	SILT EXCAVATION SYNTHETIC ROVING
110	M	LINES (200MM, 2.3MM) THERMOPLASTIC PAVEMENT MARKING	10,000	M2	MATTING FOR EROSION CONTROL
		LINES (600MM, 3.1MM)	7,150	M2	PERMANENT SOIL REINFORCEMENT MAT
71	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (2.3MM)	100	M EA	6.4MM HARDWARE CLOTH ***X***X***MM PERFORATED CS
1,140	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (100MM)	2	ĿΑ	PIPE TEE RISER, 1.63MM THICK (600MM X 600MM X 600MM)
5	EA	COLD APPLIED PLASTIC PAVEMENT MARKING SYMBOL	1	EA	***X ***X***MM PERFORATED CS
139,060	M	PAINT PAVEMENT MARKING LINES (100MM)			PIPE TEE RISER, 2.01MM THICK (800MM X 800MM X 800MM)

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Lump Sum LS EVAZOTE JOINT SEALS

1	EA	***X ***X***MM PERFORATED CS PIPE TEE RISER, 2.01MM THICK (900MM X 900MM)
300	M3	STILLING BASINS
147	HA	SEEDING & MULCHING
91.5	HA	MOWING
1,975	KG	SEED FOR REPAIR SEEDING
6.5	MTN	FERTILIZER FOR REPAIR SEEDING
4,125	KG	SEED FOR SUPPLEMENTAL SEEDING
247.25	MTN	FERTILIZER TOPDRESSING
1.81	HA	SPECIALIZED SEEDING UNDER
		GUIDERAIL & GUARDRAIL (CENTI- PEDE)
50	M	IMPERVIOUS DIKE
100	HR	SPECIALIZED HAND MOWING
32	EA	RESPONSE FOR EROSION CONTROL
620	M3	CULVERT DIVERSION CHANNEL
5	HA	REFORESTATION
0.52	HA	STREAMBANK REFORESTATION
40	EA	GENERIC EROSION CONTROL ITEM ROOT WADS

CULVERT ITEMS

Lump Sum	LS	CULVERT EXCAVATION, STA *****
		(68+33.000-L-)
555	MTN	FOUNDATION CONDITIONING MATER-
		IAL, BOX CULVERT
1,138.4	M3	CLASS A CONCRETE (CULVERT)
86,905	KG	REINFORCING STEEL (CULVERT)

STRUCTURE ITEMS

Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		** AT STATION ********
		(1, 152+01.036-L-)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
		(1, 70+91.154-L- LT)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		** AT STATION ********
		(1, 70+91.154-L-RT)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		** AT STATION ************************************
I C	LS	(1, 99+31.540-L-) FOUNDATION EXCAVATION FOR BENT
Lump Sum	LS	** AT STATION ********
		(2, 70+91.154-L- RT)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		** AT STATION ********
		(2, 70+91.154-L-LT)
3,248.2	M2	REINFORCED CONCRETE DECK SLAB
2,914.9	M2	GROOVING BRIDGE FLOORS
546.6	M3	CLASS A CONCRETE (BRIDGE)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(152+01.036-L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
		(70+91.154-L-LT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION

		(70+91.154-L- RT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
		(99+31.540-L-)
47,964	KG	REINFORCING STEEL (BRIDGE)
3,617	KG	SPIRAL COLUMN REINFORCING
		STEEL (BRIDGE)
340.1	M	914MM PRESTRESSED CONCRETE
		GIRDERS
274,400	LS	APPROX KG STRUCTURAL STEEL
1,741	M	HP310X79 STEEL PILES
413.292	M	CONCRETE BARRIER RAIL
2,569.7	M2	100MM SLOPE PROTECTION
Lump Sum	LS	ELASTOMERIC BEARINGS
Zamp Sam	LU	DELECTION DEFINITION

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L030722 009

STATE FUNDED PROPOSAL, CONTRACTOR LICENSE REQUIRED TO BID

CONTRACT ID: C200873 34398.3.8 DIV OFFICE ABERDEEN LENGTH = 16.327 KM

COUNTY : RICHMOND

GRADING, DRAINAGE, PAVING, SIGNALS, & STRUCTURES.

MBE GOAL 10.0% WBE 5.0% COMPLETION DATE: DEC 31 2006

US-220 BYPASS FROM SOUTH OF SR-1448 TO NORTH OF NC-73.

		ROADWAY ITEMS	106.8	M	****MM RC PIPE CULVERTS, CLASS IV
					(600MM)
Lump Sum	LS	MOBILIZATION	129.6	M	****MM RC PIPE CULVERTS, CLASS
Lump Sum	LS	CONSTRUCTION SURVEYING			IV (750MM)
Lump Sum	LS	CLEARING & GRUBBING HEC-	169.2	M	****MM RC PIPE CULVERTS, CLASS
	***	TARE(S)			IV
4	HA	SUPPLEMENTARY CLEARING & GRUB- BING			(900MM)
2	EA	SEALING ABANDONED WELLS	37.2	M	***MM CS PIPE CULVERTS, ****MM THICK
2,230,400	M3	UNCLASSIFIED EXCAVATION			(900MM, 2.01MM)
Lump Sum	LS	REINFORCED BRIDGE APPROACH	48	M	400MM CS PIPE CULVERTS, 1.63MM
		FILL, STATION *********			THICK
I C	1.0	(15+83.426-Y6-)	19.2	M	450MM CS PIPE CULVERTS, 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH FILL, STATION ************************************	32.4	M	600MM CS PIPE CULVERTS, 1.63MM
		(16+98.476 -Y8-)	32.4	IVI	THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	30	M	800MM CS PIPE CULVERTS, 2.01MM
		FILL, STATION ************************************			THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	553.2	M	300MM BIT COAT CS PIPE CUL-
Lump Sum	Lo	FILL, STATION **********	175.2	М	VERTS, TYPE B 1.63MM THICK 400MM BIT COAT CS PIPE CUL-
		(20+66.960 -Y1-)	173.2	IVI	VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	69.6	M	450MM BIT COAT CS PIPE CUL-
		FILL, STATION ************************************			VERTS, TYPE B 1.63MM THICK
Lump Sum	LS	REINFORCED BRIDGE APPROACH	74.4	M	600MM BIT COAT CS PIPE CUL-
Lump Sum	Lo	FILL, STATION *********			VERTS, TYPE B 1.63MM THICK
		(70+98.448-L-)	62	EA	***MM BIT COAT CS PIPE ELBOWS, TYPE B ****MM THICK
57,000	M3	UNDERCUT EXCAVATION			(300MM, 1.63MM)
6,700	MTN	CLASS IV SUBGRADE STABILIZA-	3	EA	400MM BIT COAT CS PIPE ELBOWS,
202 000	M2	TION PORROW EVCAVATION			TYPE B 1.63MM THICK
382,800 26,400	M3 M3	BORROW EXCAVATION DRAINAGE DITCH EXCAVATION	2	EA	450MM BIT COAT CS PIPE ELBOWS,
2,480	M	BERM DITCH CONSTRUCTION	2	T: A	TYPE B 1.63MM THICK
55,400	M2	REMOVAL OF EXISTING ASPHALT	2	EA	600MM BIT COAT CS PIPE ELBOWS, TYPE B 1.63MM THICK
,		PAVEMENT	423.2	M	PIPE REMOVAL
1,750	M2	BREAKING OF EXISTING ASPHALT	366	M2	150MM SLOPE PROTECTION
		PAVEMENT	Lump Sum	LS	FINE GRADING
78	HR	PROOF ROLLING	500	KG	SEALING EXISTING PAVEMENT
49,320 36,860	M3 M2	SELECT GRANULAR MATERIAL FABRIC FOR SOIL STABILIZATION	22.51		CRACKS
1,070	MTN	SELECT MATERIAL, CLASS II	32,560	M2	LIME TREATED SOIL (SLURRY METHOD)
		FOUNDATION CONDITIONING MATE-	360	MTN	LIME FOR LIME TREATED SOIL
		RIAL, MINOR STRS	288,500		AGGREGATE BASE COURSE
108	M	375MM SIDE DRAIN PIPE	75,970	M2	***MM SOIL CEMENT BASE
174	M	450MM SIDE DRAIN PIPE			(180MM)
94.8	M	300MM RC PIPE CULVERTS, CLASS	2,280	MTN	PORTLAND CEMENT FOR SOIL CE- MENT BASE
2,479.2	M	III 375MM RC PIPE CULVERTS, CLASS	73,800	L	ASPHALT CURING SEAL
2,477.2	141	III	500		INCIDENTAL STONE BASE
1,818	M	450MM RC PIPE CULVERTS, CLASS	240,100	L	PRIME COAT
		III	19,600	M2	MILLING ASPHALT PAVEMENT, **MM
3,519.6	M	600MM RC PIPE CULVERTS, CLASS			DEPTH
2,187.6	M	III 750MM BC DIDE CHI VEDTS CLASS	4.040		(55MM)
2,187.0	IVI	750MM RC PIPE CULVERTS, CLASS III	1,960		INCIDENTAL MILLING
1,571.4	M	900MM RC PIPE CULVERTS, CLASS	7,770	MIN	ASPHALT CONC BASE COURSE, TYPE B25.0B
		III	42,600	MTN	ASPHALT CONC BASE COURSE, TYPE
192	M	1050MM RC PIPE CULVERTS, CLASS			B25.0C
5140	M	III	26,800	MTN	ASPHALT CONC INTERMEDIATE
514.8	M	1200MM RC PIPE CULVERTS, CLASS III	47.000	3 (T) 1	COURSE, TYPE I19.0B
73.2	M	1350MM RC PIPE CULVERTS, CLASS	67,890	MIN	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
		Ш	14.100	MTN	ASPHALT CONC SURFACE COURSE,
326.4	M	****MM RC PIPE CULVERTS, CLASS	- 1,100		TYPE S9.5A
		IV (1200MM)	8,570	MTN	ASPHALT CONC SURFACE COURSE,
154.8	M	****MM RC PIPE CULVERTS, CLASS		3	TYPE S9.5B
154.0	.71	IV	63,880	MTN	ASPHALT CONC SURFACE COURSE, TYPE S12.5C
		(1350MM)	8 091	MTN	ASPHALT BINDER FOR PLANT MIX,
57.6	M	****MM RC PIPE CULVERTS, CLASS	0,071	.,.111	GRADE PG 64-22
		IV (450MM)	3,514	MTN	ASPHALT BINDER FOR PLANT MIX,
					GRADE PG 70-22

			17,900 11	M2 EA	FILTER FABRIC FOR DRAINAGE PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	
550	MTN	ASPHALT PLANT MIX PAVEMENT REPAIR	85	EA	GENERIC EROSION CONTROL ITEM LOG VANES	
65,250 446	M EA	MILLED RUMBLE STRIPS RIGHT OF WAY MARKERS	28	M3	REINFORCED CONCRETE SIGN FOOT- INGS	
7,140	M3	SUBDRAIN EXCAVATION	4	M3	PLAIN CONCRETE SIGN FOOTINGS	
3,575	M3	SUBDRAIN FINE AGGREGATE	8,356	KG	SUPPORTS, BREAKAWAY STEEL BEAM	
8,610	M	150MM PERFORATED SUBDRAIN PIPE	5,534	KG	SUPPORTS, SIMPLE STEEL BEAM	
861	EA	150MM SUBDRAIN PIPE WYES,	1,701	M	SUPPORTS, 4.5KG STEEL U-CHANNEL	
58	EA	TEES, & ELBOWS CONCRETE PAD FOR SUBDRAIN PIPE	20	EA	SUPPORTS, 3KG STEEL U-CHANNEL	
116		OUTLET	30 156	EA EA	SIGN ERECTION, TYPE D SIGN ERECTION, TYPE E	
116	M	150MM OUTLET PIPE (SUBDRAINS)	48	EA	SIGN ERECTION, TYPE F	
10	MTN	BLOTTING SAND ENDWALLS	41	EA	SIGN ERECTION, TYPE ***	
58.9 7.6	M3 M3	REINFORCED ENDWALLS		2.1	(GROUND MOUNTED)	
3.68	M3	PIPE COLLARS			(A)	
0.4	M3	PIPE PLUGS	28	EA	SIGN ERECTION, TYPE ***	
242	EA	MASONRY DRAINAGE STRUCTURES			(GROUND MOUNTED) (B)	
52.43	M	MASONRY DRAINAGE STRUCTURES	20	EA	SIGN ERECTION, MILEMARKERS	
39	EA	FRAME WITH TWO GRATES, STD	69	EA	DISPOSAL OF SIGN SYSTEM, U-	
		840.****	0,7	Lit	CHANNEL	
		(840.20)	1	EA	DISPOSAL OF SIGN SYSTEM, WOOD	
194	EA	FRAME WITH TWO GRATES, STD 840.22	158	M2	WORK ZONE SIGNS (STATIONARY)	
6	EA	FRAME WITH TWO GRATES, STD	97	M2	WORK ZONE SIGNS (PORTABLE)	
Ü	LA	840.24	50	M2	WORK ZONE SIGNS (BARRICADE	
4	EA	FRAME WITH TWO GRATES, STD			MOUNTED)	
		840.29	4	EA	FLASHING ARROW PANELS, TYPE C	
4	EA	FRAME WITH COVER, STD 840.54	4	EA	CHANGEABLE MESSAGE SIGNS	
4,250	M	SHOULDER BERM GUTTER	16	EA	WARNING FLAG SETS	
6	EA	MODIFIED CONCRETE FLUME	475	EA	DRUMS	
160	M2	100MM CONCRETE PAVED DITCH	250	EA	CONES	
560	M2	125MM MONOLITHIC CONCRETE IS-	370	M	BARRICADES (TYPE III)	
		LANDS (KEYED IN)	3,460	HR EA	FLAGGER	
118.4	M	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	13	EA	WARNING LIGHTS (TYPE B) TRUCK MOUNTED IMPACT ATTENUA-	
5	EA	CONVERT EXISTING CATCH BASIN	2	LA	TOR (45 MPH)	
	2.1	TO DROP INLET	2	EA	TRUCK MOUNTED IMPACT ATTENUA-	
10,043.16	M	STEEL BM GUARDRAIL			TOR (60 MPH)	
201.93	M	STEEL BM GUARDRAIL, SHOP	200	EA	TUBULAR MARKERS (FIXED)	
		CURVED	2	EA	GUIDE SIGN RELOCATION - TEMP (GROUND TO GROUND MOUNTED	
20	EA	ADDITIONAL GUARDRAIL POSTS			SIGNS)	
10	EA	GUARDRAIL ANCHOR UNITS, TYPE ************************************	2,360	EA	TEMPORARY RAISED PAVEMENT	
4	EA	(B-77)	74,860	M	MARKERS THERMOPLASTIC PAVEMENT MARKING	
4	EA	GUARDRAIL ANCHOR UNITS, TYPE ************************************	7 1,000		LINES (100MM, 2.3MM)	
		(BIC)	30,170	M	THERMOPLASTIC PAVEMENT MARKING	
5	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1	2,190	M	LINES (100MM, 3.1MM) THERMOPLASTIC PAVEMENT MARKING	
34	EA	GUARDRAIL ANCHOR UNITS, TYPE	2,170		LINES (200MM, 2.3MM)	
	.	CAT-1	130	M	THERMOPLASTIC PAVEMENT MARKING LINES (600MM, 3.1MM)	
22	EA	GUARDRAIL ANCHOR UNITS, TYPE III	146	EA	THERMOPLASTIC PAVEMENT MARKING	
69	EA	GUARDRAIL ANCHOR UNITS, TYPE			SYMBOL (2.3MM)	
2	г.	350	1,140	M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES (100MM)	
2	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350	5	EA	COLD APPLIED PLASTIC PAVEMENT	
500	M	REMOVE EXISTING GUARDRAIL			MARKING SYMBOL	
110.49	M	TEMPORARY STEEL BM GUARDRAIL	233,310	M	PAINT PAVEMENT MARKING LINES	
2	EA	GUARDRAIL ANCHOR UNITS, TYPE			(100MM)	
		350 TEMPORARY	1,310	M	PAINT PAVEMENT MARKING LINES (200MM)	
15,754.7	M	DOUBLE FACED CABLE GUIDERAIL	490	M	PAINT PAVEMENT MARKING LINES	
66	EA M	CABLE GUIDERAIL ANCHOR UNITS			(600MM)	
34,400	IVI	WOVEN WIRE FENCE, 1200MM FAB- RIC	192	EA	PAINT PAVEMENT MARKING SYMBOL	
7,500	EA	100MM TIMBER FENCE POSTS,	600	M	REMOVAL OF PAVEMENT MARKING LINES (100MM)	
1 240	EA	2.30M LONG	20	M	REMOVAL OF PAVEMENT MARKING	
1,340	EA	125MM TIMBER FENCE POSTS, 2.50M LONG			LINES (200MM)	
100	M	CHAIN LINK FENCE, 1200MM	50	M	REMOVAL OF PAVEMENT MARKING	
20	ΕA	FABRIC METAL LINE POSTS FOR 1200MM	2	EA	LINES (600MM) REMOVAL OF PAVEMENT MARKING	
30	EA	METAL LINE POSTS FOR 1200MM CHAIN LINK FENCE			SYMBOLS & CHARACTERS	
3	EA	METAL TERMINAL POSTS FOR	600 4,630	M EA	CURING COMPOUND REMOVAL, LINES PERMANENT RAISED PAVEMENT	
23,000	M	1200MM CHAIN LINK FENCE ADDITIONAL BARBED WIRE	4,030	ĽА	MARKERS	
23,000	M EA	DOUBLE GATES, ****MM HIGH,	34	EA	2.1M U-CHANNEL POSTS	
1	ĽА	****MM WIDE, ****MM OPENING	186	EA	FLEXIBLE DELINEATORS (CRYSTAL)	
		(1200MM, 4000MM, 8000MM)	55	EA	FLEXIBLE DELINEATORS (YELLOW)	
1,700	MTN	PLAIN RIP RAP, CLASS I	55	EA	FLEXIBLE DELINEATORS (CRYSTAL	
		PLAIN RIP RAP, CLASS A			& RED)	
3,900	MTN	PLAIN RIP RAP, CLASS B				

3,900 MTN PLAIN RIP RAP, CLASS B

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2 EA ***X***X***MM PERFORATED CS

			2	EA	***X***X***MM PERFORATED CS PIPE TEE RISER, 1.63MM THICK (600MM X 600MM X 600MM)
30	EA	FLEXIBLE DELINEATORS (YELLOW & RED)	2	EA	***X ***X***MM PERFORATED CS PIPE TEE RISER, 2.01MM THICK
6	EA	OBJECT MARKERS (END OF ROAD)		Б.	(800MM X 800MM X 800MM)
28	EA	OBJECT MARKERS (TYPE **) (3)	1	EA	***X ***X***MM PERFORATED CS PIPE TEE RISER, 2.01MM THICK (900MM X 900MM X 900MM)
717	MTN	FOUNDATION CONDITIONING MATE-	400	M3	STILLING BASINS
		RIAL, UTILITIES CLASS ******* (IV)	234.5	HA	SEEDING & MULCHING
717	MTN	BEDDING MATERIAL, UTILITIES	141.5	HA	MOWING
		CLASS ********	3,050	KG	SEED FOR REPAIR SEEDING
122	MTN	(IV) PAVEMENT REPAIR FOR UTILITY	10 6,575	MTN KG	FERTILIZER FOR REPAIR SEEDING SEED FOR SUPPLEMENTAL SEEDING
122	WITIN	WORK		MTN	FERTILIZER TOPDRESSING
201.6	M	***MM DI WATER PIPE, CLASS	3.11	HA	SPECIALIZED SEEDING UNDER
		********* WP (100MM, CL 50, 2.41MPA WP)			GUIDERAIL & GUARDRAIL (CENTI-
1,301.3	M	***MM DI WATER PIPE, CLASS	85	M	PEDE) IMPERVIOUS DIKE
		****** WP	125	HR	SPECIALIZED HAND MOWING
145.4		(250MM, CL 50, 2.41MPA WP)	56	EA	RESPONSE FOR EROSION CONTROL
145.4 980.5	M M	20MM COPPER WATER PIPE, TYPE K 150MM PVC WATER PIPE, SDR 21,	1,335	M3	CULVERT DIVERSION CHANNEL
700.5		1.38MPA WP	11	HA	REFORESTATION
41.7	M	200MM PVC WATER PIPE, SDR 21,	0.52 40	HA EA	STREAMBANK REFORESTATION GENERIC EROSION CONTROL ITEM
1,745.3	M	1.38MPA WP 250MM PVC WATER PIPE, SDR 21,	40	LA	ROOT WADS
1,743.3		1.38MPA WP	135	M	SIGNAL CABLE
1,106	M	300MM PVC WATER PIPE, SDR 21,	5	EA	VEHICLE SIGNAL HEAD (300MM, 3
2 440 9	VC	1.38MPA WP	1	EA	SECTION) VEHICLE SIGNAL HEAD (300MM, 5
3,449.8	KG	DUCTILE IRON WATER PIPE FIT- TINGS, 1.72MPA MIN WP		2	SECTION)
2	EA	20MM CORPORATION STOP	135	M	MESSENGER CABLE (9.52MM)
2	EA	***MM GATE VALVE & VALVE BOX,	130	M	TRENCHING (UNPAVED)
		****MPA WP (100MM, 1.38MPA WP)	4 8	EA EA	WOOD POLE GUY ASSEMBLY
15	EA	150MM GATE VALVE & VALVE BOX,	1	EA	25MM RISER WITH WEATHERHEAD
	г.	1.38MPA WP	3	EA	50MM RISER WITH WEATHERHEAD
1	EA	200MM GATE VALVE & VALVE BOX, ****MPA WP	100	M	INDUCTIVE LOOP SAWCUT
		(1.38MPA WP)	305	M EA	LEAD-IN CABLE MICROWAVE VEHICLE DETECTOR
15	EA	250MM GATE VALVE & VALVE BOX, ****MPA WP	85	M	TYPE 2 LEAD-IN CABLE
		(1.38MPA WP)	6	EA	SIGN FOR SIGNALS
7	EA	300MM GATE VALVE & VALVE BOX,	1	EA	CONTROLLER WITH CABINET (TYPE
		****MPA WP (1.38MPA)	3	EA	2070L, POLE MOUNTED) DETECTOR CHANNEL (TYPE 2070L)
1	EA	*** X ***MM TAPPING SADDLE			
2	EA	(250MM X 20MM) 300MM TRANSITION COUPLING,			
2	LA	***********			CULVERT ITEMS
		(PVC TO AC)			
2	EA EA	RELOCATE EXISTING WATER METER RELOCATE EXISTING FIRE HYDRANT	Lump Sum	LS	CULVERT EXCAVATION, STA *****
974	M	FILL OR REMOVE ABANDONED 300MM	-		(57+00.000-L-)
		PIPE, ************************************	Lump Sum	LS	CULVERT EXCAVATION, STA ****** (68+33.000-L-)
76	M	450MM STEEL ENCASEMENT PIPE,	882	MTN	FOUNDATION CONDITIONING MATER-
		****MM THICK, BY BORING &			IAL, BOX CULVERT
		JACKING (8MM)	1,597 122,384	M3 KG	CLASS A CONCRETE (CULVERT) REINFORCING STEEL (CULVERT)
110	M	600MM STEEL ENCASEMENT PIPE,	122,501	110	REAL ORDER OF ELECTRICAL
		****MM THICK, BY BORING & JACKING			
		(8MM)			STRUCTURE ITEMS
41	EA	GENERIC UTILITY ITEM			
		300MM RESTRAINED RETAINER GLAND, 1.72MPA WP	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
5,500	M	TEMPORARY SILT FENCE	Zamp Jam	20	** AT STATION ********
1,750	MTN	STONE FOR EROSION CONTROL, CLASS A	I C	LS	(1, 152+01.036-L-) FOUNDATION EXCAVATION FOR BENT
32,225	MTN	STONE FOR EROSION CONTROL,	Lump Sum	Lo	** AT STATION *********
		CLASS B			(1, 70+91.154-L- LT)
12,300 249.5	MTN HA	SEDIMENT CONTROL STONE TEMPORARY MULCHING	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***********
9,850	KG	SEED FOR TEMPORARY SEEDING			(1, 70+91.154-L-RT)
79.25	MTN	FERTILIZER FOR TEMPORARY SEED-	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***********
2,605	M	ING TEMPORARY SLOPE DRAINS			(1, 99+31.540-L-)
2,605	EA	INLET PROTECTION AT TEMPORARY	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
202		SLOPE DRAINS			(1,19+16.856-L-)
208,500	M3	SILT EXCAVATION	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
16,000 13,200	M2 M2	SYNTHETIC ROVING MATTING FOR EROSION CONTROL			** AT STATION ************************************
7,150	M2	PERMANENT SOIL REINFORCEMENT	Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		MAT			** AT STATION ********
350	M	6.4MM HARDWARE CLOTH			(1,62+16.062-L-)

Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
		(2, 70+91.154-L- RT)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
		(2, 70+91.154-L-LT)
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT ** AT STATION ************************************
Lump Sum	LS	FOUNDATION EXCAVATION FOR BENT
Lump Sum	Lo	** AT STATION ************************************
6,106.1	M2	REINFORCED CONCRETE DECK SLAB
5,396.4	M2	GROOVING BRIDGE FLOORS
985.6	M3	CLASS A CONCRETE (BRIDGE)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION
		(152+01.036-L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ***********
		(70+91.154-L- LT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(70+91.154-L- RT)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(19+16.856-L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(41+34.347-L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(62+16.062-L-)
Lump Sum	LS	BRIDGE APPROACH SLABS, STATION ************************************
		(99+31.540-L-)
87,620	KG	REINFORCING STEEL (BRIDGE)
7,636	KG	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)
340.1	M	914MM PRESTRESSED CONCRETE GIRDERS
1,249.394	M	1372MM PRESTRESSED CONCRETE GIRDERS
274,400	LS	APPROX KG STRUCTURAL STEEL
3,478.5	M	HP310X79 STEEL PILES
52	EA	STEEL PILE POINTS
814.536	M	CONCRETE BARRIER RAIL
4,529.7	M2	100MM SLOPE PROTECTION
Lump Sum	LS	ELASTOMERIC BEARINGS
	LS	EVAZOTE JOINT SEALS
Lump Sum	LS	EVAZOTE JUINT SEALS